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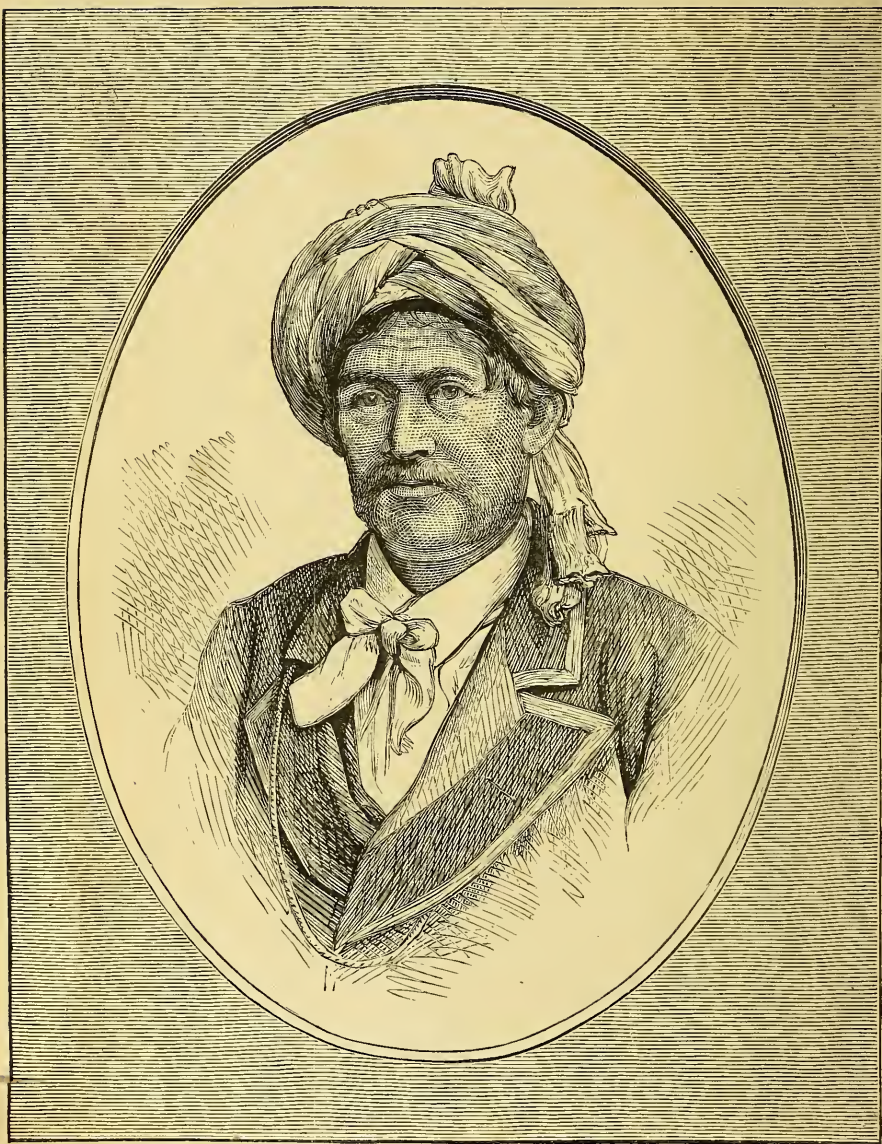
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ANTHROPOLOGIA.



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ANTHROPOLOGIA :

IN WHICH ARE INCLUDED THE PROCEEDINGS OF THE
LONDON ANTHROPOLOGICAL SOCIETY.

VOLUME I.—1873-5.

LONDON :

Published for the London Anthropological Society,

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ANTHROPOLOGIA.

Proceedings of the London Anthropological Society.*

PRELIMINARY GENERAL MEETING,

Held at 8, Gray's Inn Square, London, on Tuesday, March 11, 1873.

DR. R. S. CHARNOCK, F.S.A., IN THE CHAIR.

It was proposed by Mr. Gould Avery, seconded by Mr. Rew, and unanimously resolved that the regulations presented by the Committee of Organization be accepted as binding until the first annual general meeting.

The following gentlemen were elected as Officers and Council for the year 1873 :—

President.

R. S. CHARNOCK, Ph.D., F.S.A.

Vice-Presidents.

Capt. R. F. BURTON, F.R.G.S. | C. STANILAND WAKE, M.A.I.

Treasurer.

Mr. JOSEPH KAINES.

Council.

JOHN BEDDOE, M.D.
Mr. H. B. CHURCHILL.
J. BARNARD DAVIS, M.D., F.R.S.,
F.S.A.
Mr. JOHN FRASER.
GEORGE HARCOURT, M.D. .

J. SINCLAIR HOLDEN, M.D., F.G.S.,
M.A.I.
T. INMAN, M.D.
KELBURNE KING, M.D., F.R.C.S.
J. B. MITCHELL, M.D.
T. WALTON, M.R.C.S.

Honorary Secretary.

A. L. LEWIS, M.A.I.

Honorary Foreign Secretary.

C. CARTER BLAKE, Doct. Sci.

* The Council desires it to be understood that, in publishing the papers read before the Society, and the discussions thereon, it accepts no responsibility for any of the statements or opinions contained therein.

The Honorary Foreign Secretary read the following letter from Capt. R. F. Burton, Vice-President :—

TRIESTE,
February 17th, 1873.

MY DEAR CHARNOCK,

I see by the papers that a "new Anthropological Society has been founded, Dr. C. Carter Blake and Captain Burton being amongst the promoters."

Absence from England prevents my taking such active steps in aid of the re-formed Society as I desire to take, in fact, the only action left for me is to explain my reasons for seceding from the "Institute."

Without entering into the *cause célèbre* of Anthropologist *versus* Ethnologist, or into the sharp practice said to have characterized the Annual Meeting, and the discussion of the Second House List, I will briefly state my objection to the "Institute," namely, that it is no longer, in my humble opinion, what we intended it to be, and what we made it on January 6, 1863.

The explorer and traveller's chief want is some Journal in which he can discuss those highly interesting social problems, physiological details, and questions of religion and morality which are judged unfit for a book addressed to the general public. My object was simply and purely to supply this want when I first took the chair *ad interim* until our energetic and single-hearted friend, the late James Hunt, was ready to become President of the Anthropological Society. Many Members joined us with the higher view of establishing a society where they might express their opinions freely and openly, without regard to popularity, respectability, and other idols of the day. We did not tremble at the idea of "acquiring an unhappy notoriety." We wanted to have the truth and the whole truth, as each man understands it. We intended to make room for every form of thought, the orthodox and the heterodox; the subversive and the conservative; the retrograde equally with the progressive. Personally, I was desirous to see a fair and exhaustive discussion of phrenology; of missionary enterprise, concerning which so little is known in England; of the *pros* and *cons* of negro slavery, upon which subject exaggerated, not to say erroneous, ideas, dating from the early part of the nineteenth century, when both sides fought for faction, not for truth, have sunk deep in the popular mind; and of spiritualism, now become the faith of millions, which so-called science, supported by the host of neophobes—allow me to coin the word—either treats with rude hostility or with supercilious neglect. Our general and especial aim, however, was to establish a free society in a free country, and by such means to attain the level of discussion in Germany and France. The last but not the least of our projects was to supply the English reader with our versions of foreign Anthropological works, written by such authorities as Broca, Waitz, Pouchet, Gastaldi, and Carl Vogt.

It is almost needless to say that the existing "Anthropological

Institute" no longer meets these wants, which are still as urgent as they were. I therefore hail with pleasure your and Dr. C. Carter Blake's action in the matter, and propose myself as one of your fellow-workmen—this time, it is hoped, not a "dummy." Let us again fight under the old flag of January, 1863. Our battle will be against numbers far exceeding ours—the victory will be only the more glorious.

Yours sincerely,

(Signed)

RICHARD F. BURTON.

Ex-President Anthropological Society of London.

Dr. Collyer and others took part in the discussion which followed, and the meeting then adjourned.

ORDINARY MEETING,

Held at 1, Adam Street, Adelphi, London, on Wednesday, April 9, 1873.

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

Elections announced :—

Fellow, ALFRED G. LOCK, Esq. Honorary Fellow, DR. PAUL BROCA. Corresponding Fellow, R. H. COLLYER, Esq., M.D. Local Secretaries, G. E. LEWIS, Esq., Moonta, South Australia ; H. NEWMAN, Esq., H.M.I.C.S., Madras ; M. E. CARTAILHAC, Toulouse ; H. FAULKNER, Esq., Buenos Ayres ; RICHARD AUSTIN, Esq., Rio de Janeiro.

The Honorary Foreign Secretary read the following letter from Capt. R. F. Burton, F.R.G.S., Vice-President, addressed to the first meeting of the Society :—

I sincerely congratulate my friends, Doctors Charnock and Carter Blake, upon the success evidenced by the opening session of this evening, and I confidently look forward to the movement and progress which will result from it.

The enclosed paper was written at the special request of Dr. Charnock during the hours subtracted from hard work. It is the first of three upon the so-called "Indians" of Brazil, and I hail with pleasure the opportunity again offered to a traveller of publishing physiological and ethnical details which lately have been compelled to lie pending in the outer darkness of manuscript. Such is in fact the object of the defunct Anthropological Society, and such, it is to

be hoped, will be the programme of this, its lineal and legal descendant.

The Tupis of Brazil had peculiarities of vice distinguishing them from all savages known to me. I cannot but think these excesses attributable to temperament, which again was affected to no small extent by the manifold subtle influences massed together in one word "climate." The best proof that race alone did not create the evils is simply this: the colonists of pure Lusitanian blood followed in the path of the savages, and only of late years, under the influence of improved education and of advanced public opinion, the national disgrace has been reduced to normal limits.

Remains only the pleasing task of "Salams" to the First Meeting, and of wishing the new society well-merited success.

RICHARD F. BURTON,

Ex-President Anthropological Society of London.

HOTEL DE LA VILLE, TRIESTE,
March 25th, 1873.

The President then delivered the following Address :—

GENTLEMEN,

On the formation of a new Society it is usual for the President to state its objects, and to inform the Members what has given rise to its formation. I shall endeavour to perform both these duties in the briefest possible manner. I will first trouble you with a few remarks on the late Anthropological Society of London and the Anthropological Institute. The former society first saw the light on the 6th January, 1863, under the auspices of the late Dr. James Hunt. The object of the society, as stated in the prospectus, was "to promote the study of Anthropology in a strictly scientific manner; to study man in all his leading aspects, physical, mental, and historical; to investigate the laws of his origin and progress; to ascertain his place in nature and his relation to the inferior forms of life; and to attain these objects by patient investigation, careful induction, and the encouragement of all researches tending to establish a *de facto* science of man."

The intention of the founder of the society was duly carried out, not only up to the date of his death, which occurred on the 29th August, 1869, but also up to the junction of the Anthropological and Ethnological Societies, which took place on the 14th February, 1871. Papers were contributed by men distinguished for science on every subject within the range of Anthropology, and truth was never sacrificed at the shrine of policy or respectability. The Journal of the Society and the Review were known in every part of the globe; works on Anthropology were translated, at the expense of

the society, from the Latin, German, French, and Italian languages ; and any one might have prophesied that bright days were in store for the lovers of science and truth. Events, nevertheless, occurred which ended most unhappily for Anthropology. In spite of many libels, anonymous and otherwise, published with the view of damaging Anthropology and the Anthropological Society, and after many overtures from the Ethnological Society, which was at the time "on its last legs," an amalgamation took place between the two Societies. When it is taken into account that the Anthropological Society had a very large number of fellows and a very valuable library and collection of skulls, and that the Ethnological was a very small society, many of whose members were life compounders, or who only contributed half the subscription paid by the Fellows of the Anthropological, the terms of amalgamation were, it must be admitted, very liberal for the Ethnologists. It was suggested by myself that the new society should be called the "Anthropological Society," but Prof. Huxley preferred the name "Anthropological Institute of Great Britain and Ireland," which was agreed to.

The House List of the new Society was made up of an equal number of the council of the amalgamating Societies, and the President of the Anthropological Society, who had then been in office just three weeks, resigned in favour of Sir John Lubbock, who, it is believed, was then or had lately been Vice-President of the Ethnological Society. At the time of the junction of the two societies it was hoped that party strife would cease, and that the Ethnologists would for the future join with the Anthropologists in building up a powerful society which should have for its object the advancement of science and truth. But it was far otherwise. To enumerate the doings and explain the conduct of the Ethnological party for the two years following the amalgamation of the two societies would fill a small pamphlet, and I will not now further trouble you on this head than by stating that on the 7th January last, in spite of a very fair and equitable House List, duly nominated on the 17th December, 1872—in spite of a protest signed by ten gentlemen, nearly all of whom had contributed papers to both the Anthropological Society and the Anthropological Institute, and had been constant in their attendance at the council—a House List, contrary to justice and equity, opposed to fair play, in violation of the spirit of the regulations of the Institute and of the practice of scientific societies, was settled behind the backs of the protestors, by means whereof the working Anthropologists were excluded ; and at the Annual Meeting on the 21st January last, called together by an *informal* document, the Members, Library, and Museum of the Institute virtually passed into the hands of the late Ethnological Society.

Many of the members of the Institute, especially the working members of the old Anthropological Society, unwilling to submit to the gross injustice that had been enacted, and desirous that Anthropology should continue to be represented in the Metropolis, forthwith inaugurated the present Society, although without funds, and deprived of a museum and library.

It is scarcely necessary for me to define the meaning of the term "Anthropology." You are, without doubt, quite as competent as myself to understand its purport and value. I think, however, it would not here be out of place to settle what the science of man is not. Anthropology does not comprise botany or geology *pur et simple*. It does not consist simply in unearthing flint implements from the sewers of the Metropolis; least of all does it comprehend pseudo-anatomy, pseudo-physiology, pseudo-geography, and pseudo-philology.

The objects of the Society will be best shown by the Prospectus. "This Society has been formed for the study of the science of anthropology in all its branches. Its founders have no desire to conflict with other societies, but rather, by collecting facts, encouraging generalisation, and dealing with subjects which no existing body shows a disposition to consider, to give to the science of mankind the widest possible extension upon a precise and scientific basis." I will here suggest some of the subjects that may come within our range. Among these are:—The causes of the variation in form of the human skull; the extent of prognathism and microcephalism in Europe; hereditary deformities; the localisation of the functions of the brain; craniology, and especially artificial deformities of the cranium; the difference of the blood corpuscles in various races; the difference between the blood corpuscles of man and other animals, and the uses to which a knowledge thereof may be applied; human parasites; the causes of the difference of stature, of the colour of the eyes, and of the colour and texture of the hair; the tendency of stature to become hereditary; the habits, manners, and customs of primitive man and of different existing races; the effects of climate on the human frame; acclimatisation of man; race antagonism; the extinction of aboriginal races; the origin of the American peoples; Phœnician colonies; foreign or introduced elements in various European countries; the distribution and migrations of the human race generally, and the ancient area of the Celtic peoples especially; the so-called pre-historic race of Europe; migration and its influence over race characters; the distribution and effects of monogamy, polygamy, and polyandry respectively; mixed breeds; consanguineous marriages, early marriages, and the laws regulating the same; the distribution of diseases; the diseases, vices, and crimes of civilization; the causes of prostitution; the doctrines of Malthus and the remedies for poverty; the causes of and distribution of infanticide; the causes of longevity and centenarianism; Darwinism; natural selection and sexual selection so far as they relate to man; the possibility of re-introducing the study of anatomy into Great Britain; music as a race test, and the influence of music on mankind; the moral sense and its presence or absence in insanity; reason and instinct; the effect of diet on the races of man; the physical effects of the adulteration of food and of impure air; the effects of premature and over education; the origin and value of different religious faiths; the necessity or utility of missionary labour, especially in civilized countries such as Turkey and China; the

occult science of the ancients, and the origin and value of modern spiritualism ; the physical effects of superstition ; the origin of human speech ; the relation between the different languages of the globe, especially the asserted Asiatic origin of the American languages, the supposed Sanscrit element in Hebrew ; stone monuments and inscribed stones, particularly those styled Runic, and the so-called inscriptions in Ogham.

It may be said, if the above is the *menu* of Anthropology, that it would take a lifetime to master only a small portion of our science. If such is really the case, what is the duty of the Anthropologist ? The natural savage state of man has been proved, the antiquity of man has been established, and further cumulative evidence can be of little value. We should now, therefore, more especially devote our attention to the study of that part of our science which is most useful to mankind. If by our exertions in the right direction we can clear away superstition, disperse some of the errors of science, elevate the human mind, and benefit man both physically and morally, we shall have done more good for our fellow-creatures than by burrowing into the earth for further evidences of man's antiquity. The Ethnologists tell us that we ought only to collect facts, and not to generalise. But of what use are mere facts without generalisation ? Are we to ignore Socrates, Aristotle, and Lord Bacon ? Prof. Haeckel remarks that "a purely empirical doctrine, composed exclusively of facts, is only a formless heap, unworthy of the name of structure. Rough facts are not the only materials ; philosophic thoughts alone can rear them into a science." Dr. Whewell says, "to the formation of science two things are requisite—facts and ideas ; observation of things without, and an inward effort of thought ; or, in other words, sense and reason. Neither of these elements by itself can constitute substantial general knowledge. The impressions of sense, unconnected by some rational and speculative principle, can only end in a practical acquaintance with individual objects ; the operations of the rational faculties, on the other hand, if allowed to go on without a constant reference to external things, can lead only to empty abstraction and barren ingenuity. Real speculative knowledge demands the combination of two ingredients—right reason, and facts to reason upon. It has been well said, that true knowledge is the interpretation of nature ; and therefore it requires both the interpreting mind and nature for its subject—both the document and the ingenuity to read it aright. Thus, invention, acuteness, and connection of thought are necessary on the one hand for the progress of philosophical knowledge ; and, on the other hand, the precise and steady application of these faculties to facts well known and clearly conceived.

"It is easy to point out instances in which science has failed to advance, in consequence of the absence of the one or other of these requisites ; indeed, by far the greater part of the course of the world, the history of most times and most countries, exhibits a condition thus stationary with respect to knowledge. The facts, the impressions on the senses, on which the first successful attempts

at physical knowledge proceeded, were well known long before the time when they were thus turned to account: The motions of the stars, and the effects of weight were familiar to man before the rise of Greek astronomy and mechanics: but the 'diviner mind' was still absent; the act of thought had not been exerted by which these facts were bound together under the form of laws and principles. Again, we have no lack of proof that mere activity of thought is equally inefficient in producing real knowledge. Almost the whole of the career of the Greek schools of philosophy, of the schoolmen of Europe in the middle ages, of the Arabian and Indian philosophers, shows us that we may have extreme ingenuity and subtlety of invention, demonstration, and methods with very slight scientific result."

The Members of this Society will agree with me as to the necessity of exercising our higher faculties in connection with the facts which are from time to time brought to our notice. It is very essential, however, that extreme care should be taken to reason only from actual facts. Loose and incorrect statements are always objectionable. As a case in point, I may instance that relating to the Silures of South Wales. Professor Huxley believes that Iberian blood is the source of the so-called black Celts in Ireland and Britain, and he says that the termination *uri* in Siluri, is characteristically Euskarian (*i. e.* Basque). This is incorrect, first, because *ir*, *or*, different orthographies of *uri*, are found in the nomenclature of the Peninsula outside the Basque area, as in the names Irippu and Orippu (Plin. II), in Hispania Tarraconensis. Secondly, these vocables *uri*, *ir*, *or* are without doubt derived from a Phœnician word signifying city, town, the same with the Hebrew *iyṛ*, a city, camp, watch tower (Nu. xiii. 19, Ge. xxiv. 10), which occurs more than 1000 times in the Scriptures; as Ir-nahash (1 Ch. iv. 12), city of serpents; Ir-shemesh (Jos. xix. 41), city of the sun; Ir-temarim, city of palms; Ir-melach, city of salt. Thirdly, because Siluri is the proper plural of *Silurus*, the sheat-fish; according to Pliny, a fish allied to the sturgeon. This supposed Iberian origin of the Silures (Ptol. Σιλυρες) seems to have arisen from their dark complexion, curled locks, and western locality. Tacitus (Agric. cap. xx.) says "Silarum colorati vultus et torti plerumque crines, et posita contra Hispaniam, Iberos veteres trajecisse easque sedes occupasse fidem faciunt." The Basques of the present day certainly have not curly hair, and as compared with the inhabitants of the rest of Spain are fair. During the Christian era at least the other peoples of Europe have been getting darker; therefore if the Iberian theory be true the Basques must at the same time have become fairer. This fact was referred to in a paper lately read before the Anthropological Institute. The mistake is carried still further by both Humboldt and others, who confound the terms "Basque" or "Euskarian" with that of "Iberian," a mistake which seems to have originated in the supposition that the Basques formerly occupied the whole of the Peninsula. But there is no evidence, historical, philological, or otherwise, that the Basques ever occupied a much more extended area than they do at the present time; and it is quite impossible that

they could ever extend as far *west* as Sicily (although this has been asserted), seeing that Sicily lies *east* of the Basque provinces. Further, the Basques do not call their language *Euscaldunac*, that term being applicable to themselves, and not to their language.

And here I may make a few remarks on philology, and on a most important subdivision, "etymology." I agree with a modern author—Sir John Lubbock—in his work on the "Origin of Civilization," that many names of animals are derived from the sound made by them; and that many words have arisen from an attempt to represent sounds characteristic of the objects they are intended to designate; but this opinion is not at all new, whilst many of the words referred to by the author are certainly not derived either directly or indirectly by means of onomatopœia. Among these are scythe, shale, shard, shed, shell, shield, shoal, skull, as will appear by a comparison of such words with the Anglo-Saxon, Dutch, Swedish, Danish, and other languages. We are also told by Sir John Lubbock that another class of words is formed from the sounds by which we naturally express our feelings; that "from *oh! ah!* the instinctive cry of pain, we get *ache*; from *pr* or *prut*, indicating contempt or self-conceit, proud, pride; that from *fie* we have fiend, foe, feud, foul, filth, fulsome, fear; the Latin *putris*, and the French *puer*." Let us examine this statement by the aid of etymology, and see whether it is based on fact. All the English words in question are derived from the Anglo-Saxon. *Ache* is from *ace*, *ece*, from Greek *αχew*, to lie in pain; pride is from *pryt*, *pryde* (Dutch *prat*); proud from *prut* (D. *preutsch*, and *prat*); fiend is from *feond* (Goth. *fiands*, G. *feind*, D. *vyand*, Sw. and Dan. *fiende*); foe comes from *fah*; and feud, in the sense of a deadly quarrel, from *fæth*, *fæghth*; and all three nouns may be traced to the Anglo-Saxon verb *fean*, *feon*, *figan*, to hate. Again, the word fear is from A.S. *færan*, *afteran*, to impress with fear, to terrify (D. *vaaren*, to put in fear, to disorder, to derange, L. *vereor*); foul, filth, and fulsome are etymologically the same word; foul is from A.S. *ful*, *fula* (D. *vuil*, G. *faul*, Dan. *fiel*), from Greek *φauλος*, whence probably the Latin *paulus*, and the Gothic *fawli*, pauci. From the same root we have Saxon *fylth* (D. *vuilte*), English filth; and from *full*, *foul*, and A.S. *sum*, *sume*, we get fulsome. Again, the French *puer* was originally written *puire*, and comes, by metaplasm, from *putere*, for *putire*; whilst the Latin *putris* is from the same root; and both are from the Sanskrit *pāti*, putrid, stinking, *pāy* to become putrid, to stink, to putrefy; whence *pāya* (pus, matter), the Greek *πνος*, *πνον*, and the Latin *pus*. Further, we are told by the same author that from "smacking the lips," we get the Greek *γλυκς*, the Latin *dulcis*, and the English *lick*, *like*. The answer is, the labial letters are *b*, *p*, and *m*; and it is quite as well to distinguish between labials, linguals, and dentals.

I have no intention of adding to the numerous theories of the present day. Few of these are based upon evidence; and we may do more good by examining some of them and pointing out their insufficiency than by hazarding new ones. Such is the theory founded on the statement made by Professor Huxley, that the Hill tribes of the Dekhan,

the Australians, and the Egyptians are of the same family, a rather startling assumption when we have here the lowest type of mankind and the most civilized of all the ancient nations united. In a paper read before the Ethnological Society "On the Geographical Distribution of the Chief Modifications of Mankind" (printed in the *Ethnological Journal* for January, 1871) the Professor says, "the ordinary Coolie, such as may be seen among the crew of any recently-returned East-Indiaman, if he were stripped to the skin would pass muster very well for an Australian, though he is ordinarily less coarse in skull and jaw;" and, referring to a coloured map made for the occasion, he further observes, "in the accompanying map, therefore, the deep blue colour is given not only to Australia, but to the interior of the Dekhan. A lighter tint of the same colour occupies the area inhabited by the ancient Egyptians and their modern descendants. For, although the Egyptian has been much modified by civilization, and probably by admixture, he still retains the dark skin, the black, silky, wavy hair, the long skull, the fleshy lips, and broadish *alæ* of the nose which we know distinguished his remote ancestors, and which cause both him and them to approach the Australian and 'Dasyu,' more nearly than they do any other form of mankind."* If this furnished any ground for the theory we might add, "Central Americans have black, silky, wavy, hair; some have a long skull, all have fleshy lips, and broadish *alæ nasi*; therefore, as Central Americans, Dekhanese, Australians, and modern Egyptians exhibit the same characters, they are all related." As the custom of embalming is of a later date than that of the builders of the Pyramids, we have really no evidence of the skull-form of the autochthonous Egyptians. If, however, we allow that they are represented by the Fellahs or the Nubians, everybody must admit that there is considerable difference between the skull-form of these peoples and that of the Australians and Dekhanese.

Another modern theory relates to the origin of the English people. More than one ingenious attempt has lately been made to show that the present English people are descended from the ancient Britons, a term which has generally been used to signify the Welsh people, although it also includes other Celtic tribes in Great Britain. If historical evidence could have been produced we should scarcely need any other, but it seems to have been admitted on all hands that historical evidence is wholly wanting. The other points that have been named are affinity of language, existing customs and habits, the colour of the hair, and the skull-form. The question of language has been but little insisted on, and is of no value whatever. The only affinity between the English language and the Welsh and other Celtic dialects is in the many words which are common to one or more of them; and when we come to examine the matter critically we find, 1st, that the Celtic peoples, like the English, have borrowed largely from the Greek and Latin; 2nd, that the Celts have borrowed

* "Indicated by prophetic type," by Andrew Murray, *The Geographical Distribution of Mammals*, London, 1866. Chap. viii. p. 66, *et seq.*

a great many words from the English ; 3rd, that the English language at the present day scarcely shows a score of common words derived from the Celtic. There are no doubt many resemblances between the manners, habits, and customs of the English people and those of the ancient Britons and their descendants, but so are there between many other nations living widely apart, and which have no affinity whatever with each other. On the other hand, I think I may remark that there are habits and customs in which the two peoples do not agree. Finally, it is said that at the present day the colour of the hair of the English people is rather dark than fair, or perhaps between dark and fair, and that they therefore agree more with the Welsh than they do with the so-called Teutonic peoples. In relation to this hair question I may note the following :—1. There is ample evidence that the Gauls were originally light-haired, *i. e.* red-haired or yellow-haired, and the word *rutilatæ comæ*, which is translated by some “reddened hair,” is rendered in the best dictionaries both “reddened hair” and “red hair.” 2. The Saxons of the present day have for the most part light hair. 3. A large portion of the German people have now-a-days hair between fair and dark, and some of them have dark hair. 4. During the last 2000 years at least, through food, climate, or some other cause, the peoples of Europe have been getting darker. What then ? We cannot judge of the question by the colour of the hair. It is said that the skull-form of both the English and Welsh is dolichocephalic, whilst that of the Teutonic peoples is brachycephalic. Granted that the Celtic skull and the modern English skull are both long,* and that the German skull is usually, although not always, short, we must not forget that the Swedes and Danes are also dolichocephalic, and that their language has considerably more affinity with the English language than the latter has with the Welsh or Irish. Indeed, I think we may say that both physically and mentally the Englishman has a much greater resemblance to a Scandinavian than he has to a Celt.

A *propos* of another commonly-received theory, the Eastern origin of the peoples of Europe. We know that the Jews have migrated to and settled in every portion of the globe ; we have intrinsic evidence that the Gipsies were originally from India ; we know that the Armenians have settled in Transylvania, Russia, Southern India, and America. Again, there is reason to suppose that the Finnic and Finnic-Tatar peoples of Europe may have originated from the other side of the Oural ; but there is really no good evidence of the Eastern origin of the different Celtic, Gothic, and Teutonic nations. That the Celtic peoples may have originated in the East I do not deny. All I say is, that up to the present time there is no evidence of the fact. It has been suggested that the stone monuments scattered over Asia were built by the people that erected similar monuments in Europe, but there is no proof that the Celts built the latter, nor even that they are very ancient. Erections of

* Four out of six of the Gaulish skulls mentioned in Dr. Barnard Davis Thesaurus Craniorum are brachycephalic.

this sort might be looked for in any part of the globe. They are found not only in the south, south-west, and north of France, the north of Spain, Granada, Mecklenburg, Hanover, Jutland, Iceland, the south of Sweden, Wales, and Ireland (Leinster), but also in Corsica* and Algeria, where we have no evidence of a Celtic population in ancient times. The second point relied upon in support of the Asiatic origin of the Celtic peoples is the affinity between the Celtic languages and the Sanscrit, which Dr. Prichard endeavoured to demonstrate by a comparison of the Celtic dialects, not only with Sanscrit, but also with the Greek, Latin, and Teutonic languages; but a comparison with the Sanscrit shows no direct connection between either the vocabularies or the grammars of the languages in question. Assuming, however, the direct connection between the Celtic and Sanscrit, it is at most applicable to but very few words, and there cannot be a doubt that more than two-thirds of the words (including those used in every-day life) in the two branches of the Celtic (viz. the Erse or Gaelic and the Welsh or Cymric) are of a native origin. If the Celts had emigrated from Asia there would be traces of their original habitat. Could it have been shown that any of the geographical names, especially the river names of Asia, are derived from the Celtic, it would have gone a long way to prove that the Celtic nations originated in the East; but this cannot be shown, whilst it is a fact that most of the river names of Europe have been named by the Celts from words in their own dialects, or from words which they have borrowed from the Greek or Latin. Probably 85 per cent. of the river names of Europe are of Celtic origin. On the other hand, it is a matter of history that B.C. 279 the Galatæ (Γαλαται) passed from Europe into Asia, where their numbers became so great that, according to Justin (xxv. 2), "all Asia swarmed with them, and no Eastern monarchs carried on war without a mercenary army of Gauls."

The supposed Eastern origin of the Gothic peoples is not confirmed by evidence, although their language has more affinity with the Sanscrit than have the Teutonic languages. Prof. Max Müller sees in *Ariovistus* a German name in which *Arya* forms an important ingredient. The name *Ariovistus* is, however, a German compound signifying "war leader," a fact which weakens the force of the philological argument; and, indeed, Prof. Müller admits as much when he says that Grimm (*Rechtsalterthümer*, p. 292) traces *Arvi* and *Ariovistus* back to the Gothic *harji*, army. Although we have no proof of the Eastern origin of the Gothic peoples, we have some evidence that in ancient times bodies of them passed from Europe into Asia. Nor is there any reliable evidence of an emigration of the Teutonic peoples from the East. Old northern writers certainly speak of the exodus of Odin from Asia, and his wanderings through Eastern Europe to North Germany and Scandinavia. According to the early Chronicles the Merovingian dynasty derived its origin from Troy, Faramund being a grandson of old Priam; but there is a

* There are both dolmens and menhirs in Corsica.

chronological difficulty arising from the fact that he was likewise the contemporary of Attila, king of the Huns. Tacitus regarded the Teutons as indigenous to their own soil, and he tells us that this was their own belief. The ancient Teutons looked upon themselves as autochthones. They derived their name from *teut*, *deut*, *terra*.* It is even difficult to determine how far the Teutons stretched eastwards in ancient times. According to Strabo (vii. c. 1.), Germanic tribes dwelt nearly as far east as the mouth of the Borysthenes, *i. e.* the Dnieper. All the knowledge that we have of these peoples previous to their contact with the Romans is exceedingly vague.

One of the most recent heresies is that of Mr. Hyde Clarke,† who endeavours to prove the ancient extension of the Georgian (Georgian, Swan, Lazian, &c.) and other populations of the Caucasus by means of ancient classical names of rivers, mountains, towns, and countries. He asserts that several hundred of these names are derived from certain Georgian terms for water or river *mdinare* and *pshani* (Georgian), *oruba* (Lazian), *veets*, *gangalitz* (Swan or Suan), *tsqari* (Mingrelian). Mr. Clarke further classes this language as Palæogeorgian, and a form of the Palæo-Asiatic, or general language from which the Semitic, Aryan, Tibetan, Chinese, and other leading families of speech branched off. He gives the following extended area in which these Palæogeorgian words have been used; viz.,—India, India beyond the Ganges, Ceylon, Persia, Media, Bactriana, Arabia, Mesopotamia, Syria, Palestine, Asia Minor, the Caucasus, and the countries of the Danube, Greece, Italy, Spain, Gaul, Britain, Ireland, and all North Africa, except Egypt. A few examples of the names derived will suffice to show the unreasonableness of the statement; Akheron, Albania, Arabia, Araxes, Arkadia, Birgus (Barrow, Ireland), Britannia, Campania, Danubius, Duranius, Epeirus, Eridanus, Euripus, Ganges, Hebrus, Hybernia, Iberus, Jordanus, Kedron, Kephissos, Kupros, Kuros or Cyrus, Liguria, Lokris, Mæander, Pælus, Phasis, Pison or Pishon, Pisaurus, Ravus (Ireland), Rhodanus, Rubicon, Sabrina, Salduba (Spain), Sardinia, Sikanian, Skamander, and Tanager. Now the only reasonable doubt is as to the names Mæander, Skamander, and Pison or Pishon; but in the *Dittionario Giorgiano* of Paolino, published in 1629, the word for water is *skále*, and for river *dindare*, and not *mdinare*, and such names as Etumander, Alander, Akalandrus, Tarandrus, and Oromzudrus, given by Mr. Clarke, would suggest a different root, probably *υδωρ*, which would corrupt to *udr*, *adr*, *ander*; and the name Pishon or Pison (Φισων), although it might corrupt from *pshani*, is in Hebrew rendered by Gesenius “water poured forth, overflowing,” and by the Rev. Alfred Jones, “great diffusion of waters.” I am afraid Mr. Clarke has attempted too much. It would be next to impossible to arrive at the true meaning of the names given by him without some knowledge of

* Celtic *tud*, whence *teut*, gens, populus, vulgus, from the Hebrew *tit*, whence *תרבות*, *η γη*.

† In a paper read before the Anthropological Institute.

Arabic, Celtic, Greek, Hebrew, Hindi, Latin, Pali, Persian, Phœnician, Sanscrit, Syriac, Tibetan, and Urdu. The mention of the term *Caucaso-Tibetan* in the same sense as *Georgian* in connection with races or languages is absurd. (1.) Because without considering the large tract of country between Tibet and the Caucasus, the Tibetans are of the Mongolic stock, and have a strongly-marked Tartar or Mongolian countenance; whilst the Georgians are of the so-called Caucasian stock. The proper Georgians are the Kart'uhli, or the inhabitants of Kartuel and Imeritia; and it would be as reasonable to compare their skull-form with that of the Ethiopian as with the Tartar. (2.) Because the languages of the Tibetans and Georgians are quite distinct. The old Georgian language is an obsolete dialect of the Kartnel, a so-called Indo-Germanic language; its syntax is without analogy, and its vocabulary has an affinity with the Armenian and Persian. The Tibetan, although it has borrowed words from the Sanskrit, has an affinity with the Chinese, not only in many common roots, but also in grammar and syntax. Again, although at the present day it cannot be properly called a monosyllabic language, there is no doubt that it originally was such, and that it is related to or is a descendant of the Chinese.

Not more reasonable are the modern terms *Aryan*, *Turanian*, *Semitic*, &c., applied to peoples or languages. We know that we have agglutinative languages; the word agglutinative has a meaning. We know that there are Asiatic and Caucasian languages and peoples, because we have a continent called Asia, and a district called the Caucasus; but such terms as *Japhetic*, *Semitic*, *Turanian*, *Aryan*, *Atlantian*, *Kimmerian*, *Allophylian*, and *Iberian* are unphilosophic and uncertain. The term *Iberian* especially is valueless, because there were two countries so named; one in Asia, the other in Europe. The first was bounded N. by Mount Caucasus, S. by Armenia, E. by Albania, and W. by Colchis; whilst the term "*Iberian*" in Europe has been applied in the following manner:—Up to the time of the Achaean league and their intimate acquaintance with the Romans, the Greeks understood by this name all the sea-coast from the pillars of Hercules to the mouth even of the Rodanus (Rhône) and Gaul. In after ages the Greeks understood by *Iberia*, the whole of Spain. Humboldt, and other modern writers have also confounded the term *Iberian* with that of *Euskarian* or *Basque*. The term has likewise been used to denote the South-western portion of Europe, comprising Spain and Portugal; while no doubt the European designation was at first applied to the peoples who dwelt on the banks or in the neighbourhood of the Ibernus or Ebro. Therefore, to lay down that a people are of *Iberian* origin is to render it doubtful whether they are Spaniards proper, Spaniards and Portuguese, Basques, those who dwell on the Ebro, or the inhabitants of *Iberia* in Asia Minor. Many of these high-sounding and far-fetched terms would never have been persisted in without the authority of great names for their origination or perpetuation. A slavish following of great names, and especially titled names—which are very often mistaken for great names—is one of the idols of the present age.

Modern Philology is prolific of absurd theories which hardly require refutation, as instance the Celtic origin of the Greek and Latin languages; the German origin of the Latin language;* the Teutonic origin of the Greek language;† the direct Sanskrit origin of the Celtic languages; the relationship between Greek, Latin, Sanskrit, and Zend as *sister* languages; the affinity between the Australian and Dravidian languages; the affinity between the agglutinative languages of Asia and those of America. I must now be drawing to a close; before doing so, however, I will refer to a scientific theory which has recently been broached by a writer whose opinion is always deserving of being treated with respect. Mr. Darwin, in his late work "the Descent of Man," lays great stress on the influence of *Sexual Selection* in the formation of the different types of mankind. He says, "for my own part I conclude that of all the causes which have led to the differences in external appearance between the races of man, and to a certain extent between man and the lower animals, sexual selection has been by far the most efficient." The characters thus established, being those which are of no service in the ordinary habits of life, could not be acted upon by *natural* selection, and the introduction of the influence of *sexual* selection is an ingenious attempt to account for the phenomena by an analogous principle. Mr. Darwin's argument is that men and women of different races prefer those of the other sex with particular characteristics, and that the continuance of such choice through many generations would produce a sensible effect on the race in one or both sexes. The special features, however, have first to be originated. Mr. Darwin supposes that, when mankind was split up into separate hordes, each of them would be exposed to slightly different conditions and habits of life, and would in time come to differ in some small degree. As soon as this happened, each isolated tribe would form for itself a slightly different standard of beauty; and then, through the preference of more powerful and leading savages for certain women, unconscious selection would come into play. Thus the difference between the tribes, at first very slight, would gradually and inevitably be increased to a greater or less degree.

The value of this hypothesis can be tested only by reference to particular characteristics, and it does not appear to be supported by those which Mr. Darwin considers. The most important of these is the greater or less hairiness of the human body. Mr. Darwin considers the greater hairiness of certain races to be the result of reversion, and that the beards of our male ape-like progenitors, which they acquired by sexual selection, were transmitted to man; while "the females apparently were in like manner first denuded of hair as a sexual ornament." This reasoning seems to be quite inconsistent with certain facts mentioned by Mr. Darwin when speaking of the colour of the skin as depending on sexual selection. He

* See also *Der Germanischer Ursprung der Lateinischen Sprache, &c.*, von Ernst Jäkel, Breslau, 1830.

† Morhof. See *Encyc. des Gens du Monde*, Art. "Allemagne."

says, "as the newly-born infants of the most distinct races do not differ nearly as much in colour as do the adults, although their bodies are completely destitute of hair, we have some slight indication that the tints of the different races were acquired subsequently to the removal of the hair, which must have occurred at a very early period"—that is, judging from the appearance of their newly-born infants, all races were originally of one colour; but by the same reasoning they must have then much more nearly resembled women in the hairiness or otherwise of the body than the supposed hairy progenitor of mankind. The smoother skin of woman, however, instead of being due to sexual selection is rather the necessary consequence of her approaching in structure nearer to a child than to a man. The same fact will account for the greater beauty of women without calling in the aid of sexual selection; woman's features are softer than those of men, because her physical organisation is not so mature. It should be noted, however, that the females of many uncivilised tribes are, owing to their laborious lives and probably more scanty food, much inferior in appearance to the males.

It seems to me that, instead of sexual selection having been the operative cause, it was simply an accompaniment, and that the result was really due to something very different. Mr. Darwin refers to the fact, which some persons have denied, that savages, by artificial means, usually exaggerate natural peculiarities; but this admission, if it can be so called, is sufficient to overturn his position, inasmuch as the same conditions which originate the peculiarities will, if they continue, tend to perpetuate, and therefore increase them. Whether or not artificial aid has any effect in the perpetuation is an open question, but it is unnecessary. Its influence, moreover, would be quite different from sexual selection, which would not, indeed, have any opportunity of operating. The savage always prefers that to which he is accustomed; that, in fact, which is natural, or founded on what is natural; except where absurd fancies have led to certain deformities, usually about the head or face, which are nevertheless not perpetuated. The choice by men of the finest women, or by women of the finest men of a tribe, has practically little influence over the formation of race characters, and what influence such a choice might have would be neutralised by the various practices referred to by Mr. Darwin as checking the effect of sexual selection, the chief of these being early betrothals and the low estimate in which woman is held among savages. That which Mr. Darwin supposes to result from sexual selection would appear to be due rather to other causes (the inadequate importance ascribed to which forms the great weakness of his wider theory of natural selection), viz., the action of surrounding media, the use of particular kinds of food, and the artificial modes of life introduced among different peoples, either to mitigate the effects of climate or as the accompaniment of social pride and indulgence.

I have now completed my task, and in conclusion I would say I do not anticipate that our science will bring forth a very large

number of students in this country, or in this century. The English mind at all events is too much employed in the ordinary business of life to grasp that which is alike recondite and profound. Those who cultivate science, and are concerned in its practical teaching must always be a minority as compared with the general body of untaught minds. The special idiosyncrasies of the English, on which I hope during the present year to read you a paper, are not such as foster precision and veracity. They are least so at the present day, of which it has been well said—

An age of puffs the age of gold succeeds,
And windy bubbles are the spawn it breeds.

The tendency of modern thought, especially in Anthropology, is to produce a small number of half-educated students, and but few original thinkers or leaders. This has in the main been caused by the worthless nature of the popular manuals, which the nineteenth century could alone produce. It is perhaps in allusion to this point that it has been said that two organisations devoted to Anthropology cannot exist side by side in London, and that the law of the "survival of the fittest" will determine the existence of one of them. That with more than three millions of inhabitants in London there may not be scope for more than one society I will not argue. Which society, however, will ultimately survive? Our objects are those of science, truth, and fair play. We encourage those to help us from whom we may differ, and look to the future for the justification of our present conduct. I shall not hint to what result the adoption of contrary principles may lead.

DR. CARTER BLAKE moved "That the best thanks of the Society be given to the President for his address, and that it be printed." He congratulated the old familiar faces he saw around him at having once more heard the voice of Science from one who had been often taxed with too great taciturnity, and he congratulated the former Treasurer, Vice-President, and President of the Anthropological Society of London at being again associated with old fellow-workers. He cordially agreed with the portions of the address relating to the decaying state of English anatomy, which there was every hope would be soon raised from the retrograde and downward path it had followed during the last few years. In a paper he meant to submit shortly, "On the Methods of Formal Logic applied to Anthropological Teaching," he would enter at length into this subject. With regard to the Anthropological Institute which had now succeeded to the mental inheritance of the Ethnological Society, he hoped no one would speak with acerbity of that body, as it contained within its members many honourable, true, zealous, and hardworking anthropologists, who were quite ignorant of recent transactions, and who, no doubt, would soon be found shoulder to shoulder with the members of the London Anthropological Society. The law of "survival of the fittest," if he as an anti-Darwinian might be permitted the use of the word, would determine whether both or only one organisation

could survive ; but the success of the society would depend on its adherence to those maxims of study which their President had uttered that night.

DR. J. BARR MITCHELL said that anthropology, after having been under a cloud for two long years, dating from the "*noce triste*" of the Institute amalgamation, had at length shone forth that evening under the auspices of Dr. Charnock, whom to their great satisfaction they had once more among them in the position he would have occupied in the Anthropological Institute had that body been worthy of its mission. They had very good evidence, in the able and animated address which the President had just delivered, that anthropological science was no longer to remain in the fossil state, but was about to come forth clothed with a living body fitted to do the work of prosecuting with vigour the many important researches connected with the study of man as a living organism. He had the greatest satisfaction in seconding the vote of thanks to Dr. Charnock for his masterly address.

The vote being carried by acclamation, was briefly responded to by the President.

The Honorary Secretary then read the following paper :—

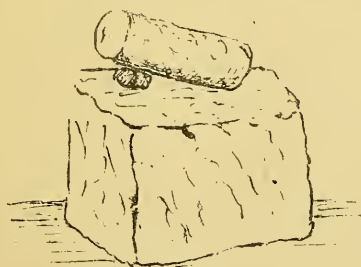
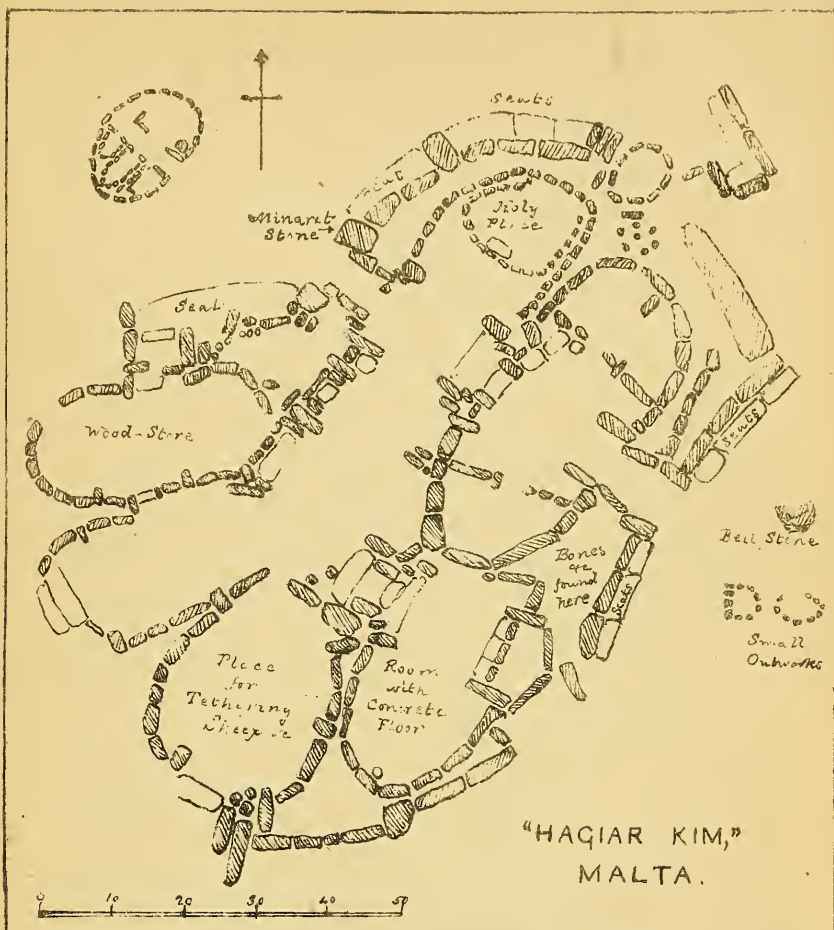
NOTES ON CERTAIN ANCIENT TEMPLES IN MALTA.

BY T. INMAN, M.D.

DURING a visit to Malta in February, 1872, I heard that there was an ancient temple in existence at Crendi, not far from Valetta, which was worth a visit ; but the local guide-book said very little about it, and the garrison officers whom we met daily at the table-d'hôte of the Imperial Hotel knew nothing of its existence.

We organised, however, a party, and hired a carriage to visit the spot in question, and on our way observed the main features which characterise modern Malta. Amongst them I would notice the existence of wells which seem to have been made in every tenth field for the storage of water. It is also worth while to call attention to the fact that the island is singularly rocky, and that there is not anywhere a great depth of soil. It is difficult to believe that, at any period of its history, Malta has been a fertile island. Its shores are rocky and rugged, very little wood is to be seen, and fuel has evidently always been a scarce commodity.

After having nearly crossed from the north to the south coast we found ourselves engaged in a vile country road, and after a rough climb arrived at a gentle slope looking southwards on to the sea. There was not a decent house in sight : a few roughly-built stone walls, a plain, jagged with limestone, and studded with patches of weeds and wheat, a forbidding series of shore cliffs, and the blue Mediterranean, were the sole things which attracted our attention. But, meagre though the landscape was, we had a surrounding of beggar boys whose attentions did much to mar our pleasure.



The "Bell Stone."

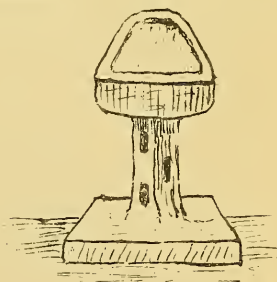


Table at Hagiar Kim

Our coachman pointed out to us the direction which we were to take, and a trodden path soon enabled us to discover the ruins which we desired to find. These are very remarkable. The first to attract attention are the huge megalithic stones that form the enceinte of the temple, some of which exceed in size those of Stonehenge. The most conspicuous of them are four upright and apparently unhewn masses, standing side by side; each is about twenty-two feet high, five feet broad, and two feet thick. Another very massive block is about twenty feet long, six feet high above the ground, and two feet thick. My first impression was that there is an outer wall resembling an oval ring, and that I had before me something resembling those stone circles so common in England, India, and elsewhere. But, inasmuch as I have, since my return home, found a ground plan of this and other similar temples in Malta and Gozo, I cannot lay much stress upon this point. On approaching the place from the carriage road, the attention is first attracted to a sort of pit which has not been wholly explored, although there is quite sufficient to be seen to puzzle the observer. One sees a lot of upright stones about three to four feet high, arranged in a horse-shoe shape; inside this again are three smaller imperfect ovals, the whole not covering an area more than about ten feet by twelve; outside this there are three other rude enclosures. Of what use these could have been it is difficult to form an idea.



Turning now our back upon these and upon the sea, we have our attention called to a huge block of limestone 6ft. by 6 by 4ft., upon which lies a roughly-hewn cylinder of calcareous stone, which on being struck is found to be sonorous as a bell. This fragment is about five feet long and eighteen inches in diameter. It has certainly been tooled into its present shape. I struck every bit of rock near, but, though many gave a "ring," none were so resonant as the one referred to. This has the more interest because it is located upon the shoreward side of the temple. On the land side, instead of there being a "bell," a tall stone about twenty-three feet high exists; and ere we left the temple we saw two lads clamber up it, and sit in a deep hollow made in the top, whence they, like the criers from a Turkish minaret, could call the faithful to worship. I specially call attention to these points, for to my fancy they indicate that the place was one where people came, as folks now do, to church, chapel, or mosque, and not, as Fergusson, in his *Rude Stone Monuments*, supposes, a sort of burial-ground.

In this belief I am fortified by noticing that outside a large part of the main wall there are well-tooled horizontal slabs placed, upon which people could comfortably sit. These external stone benches indeed form a curious feature both in Hagiar Kim—the local name for the temple which I am describing, and in an adjacent one called Mnajdra; for they have been carefully made to fit closely, and to present a smooth surface to sit upon, and are thus very different from the rude uprights which form the main edifice.

As this ruin has been described in the *Art Journal* for 1853, p. 221, in *Archæologia*, vol. xxix. p. 227; in the *International Pre-*

historic Archæological Society's Transactions for 1868 ; in *Fergusson's Rude Stone Monuments*, and in *Waring's Monuments and Ornaments of Remote Ages*, I will not attempt to do more than point attention to what was peculiarly interesting to me. On entering from the south through a regularly-made doorway and a well-flagged floor, one notices that the door-jambs have holes by means of which the place could be securely shut. But the very idea of a door to be used for security is, upon the face of it, absurd, for the rude unhewn stone walls could be vaulted over by any active man, and there is not a trace of there ever having been a roof.

When this idea fixes our attention we begin to notice in detail what is the arrangement of barriers, and discover that there are two sets, one which resemble our windows, or the openings from without into haylofts, and the other which resemble the entrance into a pinfold. Both deserve description. The former consist of square apertures cut through the substance of certain slabs of limestone, the edges being squarely finished so as to receive another slab which fits into the aperture. Under one such window we discovered the piece of limestone which was used to close it.

In these window doors the hinges, so to speak, are curious, and they demonstrate the existence of a peculiarly-shaped tool ; upon each side of the aperture a hole is drilled in the stone shaped like the letter U or half of O, *i. e.*  or  ; in a corresponding part of the shutter similar holes are formed, so that a piece of rope can be run through all the holes and tied so as to prevent the shutter from being pushed open or falling down. These shutter doors open into comparatively small chambers, which seem to me to be receptacles for animals kept for sacrifice. I cannot imagine them to have been tenanted by human beings, unless such were heavily-ironed prisoners, for they are open to the sky, and a man could readily scale the wall ; the shutters moreover are not at the command of the inmate of the cell.


The regular doors do not differ materially from those already described, except that they have two sets of holes for cords and one set for a bar ; the top and bottom pair of holes communicate with each other, whilst the middle one is deep to receive a beam. In one part of the building I am convinced that the door fitting between two such jambs was fastened from the outside (in one place at Mnaidra a window could be fastened both from within and without). With this idea firmly fixed I examined closely the chamber to which the door in question led, and found in almost every stone composing its wall apertures similar to those in the doorway, except that the semi-circle was horizontal instead of being perpendicular. It is evident from the height of these holes above the ground that sheep, goats, or large dogs were tethered to them by cord. These creatures were driven in from the outside, and then protected from wandering beasts during the night. But the masters could enter the enclosure from the temple and milk the ewes before turning them out to grass.

These tethering-holes have in some parts been polished by frequent use, in others they have been positively worn through, so

that instead of a cylindrical semi-circular canal one sees a simple deep pit. This curious contrivance is, I understand, to be seen in all the other ancient temples in Malta—they certainly are common at the neighbouring one called Mnajdra—but they have not been adopted by the modern inhabitants of the island, nor have I seen them in any other part of the world, except once, where such an aperture has been drilled in the rock of one of the so-called graves in “the street of tombs” at Syracuse. In Malta, however, one finds occasionally near a shippon a stone projecting from a wall and perforated by a straight aperture through which a rope may be run. This is readily understood, and it gives us additional reason to wonder at the contrivance which scooped out of a flat slab the wherewithal to tether a beast. The tool which was used must have had a considerable curve, and the workmen must have used it cleverly, for a large portion of the semi-circular orifice is out of sight.

In the anteroom before described there are four recesses designed for seats, which are amply large for one person, but barely sufficient for two; the projecting sides, the seat itself, and the back are pitted over by small dots which seem to have been made by a spear-headed drill which has been turned round in the hands. A well-made altar, which was discovered in the building when it was explored in 1835, is covered everywhere except the top, and where there is a palm-tree ornament, by these pits; so are also all the finished parts of Mnajdra. It is suggested that they represent the stars.

On advancing farther we find ourselves in the centre of a cross; on the right is what I am disposed to call “the Holy Place,” on the left is a passage. We first step into the former. It is remarkable for its workmanship and shape. Its form is that of the letter U; its three sides are built of hewn stones squared and set upright so as to fit each other closely; above these are two courses of horizontal stones. These form a remarkable contrast to the rough untooled blocks which form the main part of the building. But our observations do not end here; for we find in addition to the main walls there is a line of stones of small size let into the floor as shown in Plate I, a glance at which will enable any one to see that the chamber is made so as to represent the phallus, the cross course representing the margin of the prepuce; the central square slab is the one upon which the priest had stood whilst officiating, or it may have been used as an altar, though unraised. What I would especially desire to call attention to is the fact that in this and every similar chamber there is an aperture in the centre which is amply large enough to pass the hand through. This clearly resembles the opening of the male uréthra. I need not call attention to the fact that the fascinum has two appendages if it be perfect. It is clear that if in any erection these were placed outside the walls they would not be recognised by the worshippers within; consequently, to make the holy place a comparatively perfect resemblance to the male organ, two stones are placed at the entrance as in the diagram. At Gozo this idea has been in the mind of the builder who has planned the chambers

thus —  — which Anglicans will at once recognise as an emblem of the Trinity.

We now turn down the passage on the left and see therein, one being on each side, the only covered parts in the building. They are too small for a man to lie down in, and have probably been used for seats in wet weather. They are made by erecting three stones parallel to each other, and then placing a flat slab over them. In this part we saw two stone tables which have perhaps been used for offerings, not for altars, for the stone is uninfluenced by fire.

We now proceed up three or four steps into a large room which is quite as rude as the other chambers, with one remarkable exception, viz., that the floor is covered with a polished concrete of some dark material. I omitted to mention that a similar concrete exists in the holy place between the prepuce and the curved end of the chamber. There is a smaller building than the one which I am describing a very short distance to the north, in which there are two chambers floored with the same dark polished concrete, a piece of refinement which contrasts strangely with the extreme rudeness of the temple generally.

Going back to the passage we pass into a chamber on the north-west side, wherein every stone is reddened by the action of fire. When explored a quantity of charcoal was discovered, leading the inquirers to believe that this room had been the woodstore; close by this is the tall stone which I have described as a rude minaret.

As all descriptive papers are dry, I will only mention one or two things more, and then proceed to other matters.

To the south-west, and distant about six hundred yards from Hagiär Kim or Djebel el Kaim, the names given to the temple we have been describing, is a second temple called Mnaidra. It is upon a wild part of the coast, opposite a small rocky island, but I could not discover any post where even a small boat could be beached, or any path by which a mariner could ascend from the sea to the summit of the limestone crags. This temple is more highly finished than Hagiär Kim. Each door, for example, has a lintel as well as door slabs; there is also much more of the dotted ornamentation, and there is also a curious sort of sideboard hewn out of one stone. Like Hagiär Kim this temple has flat slabs placed as seats upon the outside, and those strange, small, oval sets of stones at a small distance from the main building. Speaking roughly, the main temple is one hundred feet by seventy; these small oblongs, ovals, and horse-shoes have an area varying from ten to eighty square feet. In Mnaidra the internal seats were capable of holding two persons comfortably.

In both the temples are to be found many small chambers, whose use it is impossible to guess. At Hagiär Kim there was one such which could only be reached by clambering over the stone walls, or by squeezing through a very narrow opening; in it were found, however, by the explorers of 1835, many bones, some marble heads, and some small figures representing the Cabeiri. Amongst the bones there were

the remains of a negro skeleton, and bones of dogs, sheep, goats, and birds, which may possibly have been the remains of sacrificial victims.



Neither in Mnajdra nor in Djebel el Kaim were any coins or inscriptions found, consequently we have no direct proof of the age of the building, or of its sacred character. But the evidence which is circumstantial is cogent. It may be thus summed up. It is an historical fact that the Phœnicians had temples on the islands of Malta and Gozo; in the remains of one such temple a votive candelabrum, with an inscription in Phœnician characters and language was found. The Cabeiri were Phœnician deities, seven in number, representing the planets, sun, and moon. The Phœnician name of these deities was Cabirim, and they were represented as the seven children of Zadich or Zadek, as in the words Adonizedech, Melchizedech, Zedekiah, and the description of the figures found at Hagiar Kim answers the description given of them by Eusebius (see *Art Journal*, loco citato). Moreover the Phœnicians were in the habit of paying respect to the male organ under the form of a cone or round-ended block or pillar, and our Maltese cross, which is of phallic origin, is supposed to have been a Phœnician relic. A cone was found in the holy place at Gozo.

Assuming now that the temples are of Phœnician origin, it remains for us to show some evidence that they were sacred buildings. It seems to me that this is to be proved easily for Djebel el Kaim by the existence of a bell, sonorous enough to be heard at a considerable distance, by the addition of a minaret on which an ancient muezzin could call the faithful to sacrifice, by the existence of figures which may be compared to "teraphim," "lares," and "penates," and of bones of animals generally used in sacrifice. The existence of an elaborate altar, whose summit is baked by fire, seems to clench the argument.

The figures of the Cabeiri, which are now in the museum at Valetta, do not seem ever to have had heads of their own; nay, some are made with holes into which a head might be put, and pegged in, so that one head would suit many figures; those which have not been bored at the neck have a smooth surface from shoulder to shoulder, and a head could readily have been stuck on with wax, and removed.

As the Cabeiri represented the sun, moon, and planets, and these regulated the division of time into weeks, it is likely that on every day there was a change in the figure put forth for veneration. To us it might seem absurd to think that any people could worship, adore, or pay reverence to ugly figures such as those found at Djebel el Kaim; but when we remember how a king of Judah leaped lowly in holy-homage to a wooden box, how frightful were the gods of Mexico, and how reverently Neapolitans bow down before a bloody bottle, and myriads of Christians go down on their knees in adoration of a bit of bread, an ancient handkerchief, or a musty bit of bone, we cease to be surprised.

A few words may now be said about the megalithic stones of which the temples referred to are mainly composed. I think they

have been made thus:—The ground consists of limestone more or less stratified. Into the comparatively shaly material which separates the strata from each other wedges have been driven, gradually increasing in thickness until a large mass has been prized up and broken off. This process has most likely been assisted by a fire having been made in a  or  shape, and kept up until the limestone has been calcined below and heated to a considerable depth; on this water has been poured, and, this cracking the uncalcined rock, the wedges would be enabled to operate in raising a block of definite size.

Mr. Fergusson supposes these temples to have been covered: I see no reason for the belief. If they had been covered with stone the roofing slabs would have been found on the floors, and none were there discovered. Had the chambers been roofed with wood its remains would equally have been found, but charred or rotten wood was only found in one chamber, and the calcined condition of the walls and the completeness of the combustion shows that the chamber was open to the air; moreover, wood is very scarce in Malta, and beams useful for building must then, as now, have been imported from Africa, Spain, or elsewhere. The transport from the harbour to Crendi, some eight miles, must have been very costly, and we cannot imagine that the rude architect, who built with undressed stone, could have afforded well-dressed wood. Next, as regards the Phœnician inscriptions discovered. The letters are archaic, resembling those on the Moabite stone rather than those used in the Phœnician inscriptions found by Davis on the site of ancient Carthage; yet one of them is accompanied by a Greek rendering; the Hellenic letters are so much defaced that I could only make out one here and there such as A, Σ, N, P, H, E, all of which are comparatively modern forms of the Greek alphabet, the ancient Σ having been originally C. The inscriptions found in Malta have been translated by Gesenius in his “*Monumenta Phœnica*.” One runs thus—“To our Lord Melcarth, the Lord of Tyre, the man vowing is Abd Osir, and thy worshipper—Hear our vow and bless us, or He heard our voice and blessed us.” In another inscription, whose full rendering is doubtful, the names introduced are Hannibal, the son of Barmelech. A third inscription is made by Malchibaal to the Solar Baal. A fourth is a cippus raised by Malchosir to Baal, Osir being probably the same as Asher the upright one.

In the temple of Gozo, which I did not visit, a conical stone was found on what may be called a high altar—and also a sculptured serpent. See *Waring's Ancient Monuments*, &c.

The Honorary Secretary read the following letter:—

12, RODNEY STREET, LIVERPOOL,
March 21st, 1873.

MY DEAR SIR,

“Notes on certain ancient temples in Malta” will be an appropriate name for my paper. When you have referred either to

the *Art Journal* or to the *Archæologia* you will see how my ground has been taken, and how little was left for me to say. About the tables (of which there were two at Hagiar Kim and one at Mnajdra), I really have not a single suggestion to offer, except that they probably served as "tables of show bread" to receive offerings presented to the deity of the day. They are too white to have been ever defiled by blood, for had they ever had that fluid poured out upon them the sandy white limestone would have drunk a full draught, and ever after been of a dark colour. They did not serve as altars on which offerings by fire were made, for the stone forming the upper surface is not charred; besides, there was at Hagiar Kim a real altar found of an orthodox shape. One of the two tables at this place had holes in its legs, not going through but deep enough to receive the ends of poles, which may have been used in turning the heavy mass upon its axis, but which would have been useless in carrying it. They are too large to receive any of the images which were found. Then, again, as regards the pitting, I have no valid suggestion to make. I do not believe that the holes have any hidden signification; they are, I fancy, evidence that there was an attempt at ornamentation. One seat from Hagiar Kim was brought to Malta, and is in the museum. It had two distinct kinds of design—the pits and two curves. Of this I send you a tracing. The curvilinear or spiral ornament abounded at Gozo, and was associated with the cone $\begin{smallmatrix} \vee \\ \wedge \end{smallmatrix}$; but although this represents very closely the ancient lituus, or curved staff representing a priest or divinity, the origin of the modern bishop's crozier, I do not think that it had in Malta any religious meaning. The photograph in the Norwich volume of the International Congress will give you a good general idea of the appearance of the building, and the lithographs in the *Archæologia* will give you an idea of the difficulty in selecting one as being characteristic.


As for a general description, what shall I say? At a very short distance the eye simply recognises what appears to be a wilderness of rocks. This place is not, like Stonehenge, built upon a wide plateau, and consequently it does not stand out like a beacon seen from afar. Malta is everywhere rocky, and abounds in stone fences and heaps made by stacking the loose rocks found upon the fields, and the ruins near Crendi do not seem very different from any other heap of stones until one is close upon them.

When the observer stands near the south entrance, what strikes him most is the appearance of four huge unhewn stones and a mass of smaller ones, the former about twenty-two feet, the latter six feet high, all unwrought by any tool, but put side by side in a certain order. On mounting to the top of the lower ones we recognise their great thickness; and on looking around all that we see are a few patches of cultivated land, a desert occupied by limestone rocks and green weeds, a bit of a steep limestone coast, and the sea about half a mile away. Wandering along the top of the walls, we notice many an out-of-the-way place where the outer wall is at some distance

from the inner one. As you will see upon the plan, there are chambers without any entrance door, and every wall is double, each chamber having its own, even when it is closely contiguous to another. The surface covered by this mass of stones is very considerable, and, as if to puzzle observers still more, there are windows which look out nowhere, and can only be for persons to talk through, as in the confessional of a Roman Catholic church. On one side there probably has been a priest, and on the other a man seeking for an oracular response to a question.

The absence of anything like a covered chamber is remarkable. I think it is the writer in the *Archæologia* who expresses the opinion that the ruin was once the temple of a large village, which has now been destroyed; if so, probably it was not used as a dwelling-place. But, if so, how shall one explain the existence of two temples so close together, and of a third barely more than 800 yards away?

I dare say that you have met with the statement that the Greeks and Phœnicians erected temples upon headlands, at which people of easy virtue officiated, and wherein mariners could spend a night with an attractive girl or boy. I had this in mind when visiting these places near Crendi. But there one recognised the fact that seamen could not visit a temple upon a headland unless a port were near. It would be folly to run the risk of having one's vessel dashed to pieces upon almost perpendicular rocks merely on the hope of spending a pleasant night. To my eye there is not to be found anywhere near Hagiar Kim or Mnaidra a spot where a ship could ride safely at anchor, or a path by which mariners could scale the precipitous rocks which form the coast line.

One word about the altar proper. The ornament which runs up its central part is, I believe, a conventional palm-tree. It has a faint resemblance to one of the old Assyrian "groves," and it is to be noticed that both in it and in some of the last-mentioned there is at the bottom . This seems to identify the palm with the phallus. The Crendi altar is, if I recollect rightly, trilateral. On looking over Waring's remarks I notice that he calls a table which he figures an altar, and remarks that its shape is suggestive. In both these matters I differ from him, for there is no evidence of sacrifice, and the shape suggests nothing.

There is not anything else which I can think of worth the telling.

If you consult either the *Art Journal* or *Archæologia* you will be more interested in the paper.

Ever yours, very sincerely, T. INMAN.

DISCUSSION.

After the thanks of the meeting had been unanimously voted to Dr. Inman for his valuable and interesting communications,

Mr. C. W. Cook said, Dr. Inman speaks of not being able to find either anchorage or landing-place on the coast bordering the Hagiar Kim. Assuming that the Hagiar Kim is of Phœnician origin,

I should, from my personal knowledge of the island of Malta, think it more than probable that a landing could have been effected, and for the following reasons, viz. :—

1st. The vessels in which the Phœnicians roamed about the Mediterranean were built on the gondola principle, with high prow and stern, and of very light draught.

2nd. The coast of the island of Malta is greatly composed of boulders or slabs of rock, forming, as it were, a succession of steps from some distance under water to the shore.

Under these circumstances, and taking into consideration the skill of all Mediterranean boatmen, I think there would be little difficulty in either running a Phœnician vessel alongside one of the large boulders, or heaving a kedge on to the rocks, which would, in ordinary weather, at Malta, be sufficient to hold a vessel and allow her to remain as though at anchor.

As proof of my idea I would mention that when a north-easterly gale is blowing a very heavy swell runs into the harbour and over the steps of the principal landing-place at Valetta (the port of the island), and the Maltese boatmen, with great dexterity and skill will bring a Maltese boat, which is after the gondola style, alongside one of the large blocks of stone, and hold it with their oars a sufficient time to enable a person to land.

Mr. LEWIS said that, in one of the letters which he had had the gratification of receiving from Dr. Inman in reference to this most valuable paper, the doctor remarked that the authorities all fought shy of the phallic holy place, though it was as plain to the initiated as the nose on one's face. He thought that statement was an ample testimony to the necessity for a Society in which anything relating to the science of man might be treated in a scientific manner without "fighting shy" of anything that should displease what he might call the narrow parochial straining after the "genteel" with which the "average Englishman" was so much afflicted. To come, however, to the point immediately before the meeting, they all knew that they had in England circles and ovals formed by large rough stones, nearly all of which had some reference, either by a stone placed outside, by their position in regard to other circles, or by their own orientation, to a point between north and east at which the sun rose on the longest day; they also knew that such circles existed in various countries between these islands and Hindostan, and that in the latter country they were erected at this day; the resemblance between those circles, especially in the characteristic he had mentioned, was such as to show (independently of other corroborative evidence) that some common influence had been at work throughout the whole district from India to Britain, and the nature of that influence was a most interesting anthropological question. One author considered these monuments to have been erected after the Roman period, another attributed them to some unknown tribes which had accompanied some equally unknown Caucaso-Tibetans or Palæo-Georgians in a course of imaginary wanderings. He, however, thought that no people of which we had any trace was so likely to have been the

means of spreading abroad the influence under which these monuments were erected as the Phœnicians, and he thought they had before them that which would materially support this view. The ruins under their notice consisted mainly of a series of ovals constructed of large single stones, and thus resembled the oval stone rings of Britain: it was true that in the latter the stones did not form a continuous wall, and that they were not clustered together as at Hagiar Kim, and it was also true that the idea of arranging large stones in a circular or oval form might occur to any race at any time, so that if the resemblance had ended there he would not have said anything about it; but they would see that the chamber which Dr. Inman considered to be the Holy of Holies had a north-easterly inclination, the end at which the small opening occurred being to the north-east, thus forming a remarkable parallel to the north-easterly disposition of the British circles which could hardly be a mere accidental coincidence.

Of course it might be said, and said truly, that the reference to the point where the sun rose on the longest day showed the British circles to be temples for solar worship, whereas the temple in Malta appeared to be devoted to phallic worship, but the British circles might bear a phallic interpretation as well a solar one; thus, the circle or oval might represent the female organ or the egg, the upright pillar to the north-east the male organ, and the rays of the sun falling over the point of the pillar into the circle as it rose on the morning of the longest day might typify the fertilising influence passing from one to the other; and it might be, on the other hand, that at Hagiar Kim the little opening at the north-east end of the holy place would admit the rays of the sun at a certain period. Of course he was not to be understood as saying absolutely that these things were so, but only that they might be so; nor did it follow that if they were so all the votaries of one religion understood the hidden allusions applicable to another religion which were contained in their own forms, any more than the young ladies who at the present day decorated our churches with phallic emblems at Christmas time and harvest time could be supposed to know the origin of those emblems.

It would also be noticed that the main entrance to the temple faced in a south-easterly direction, which was the direction in which the entrances of most of the sepulchral chambers of Gaul and Britain faced. At Mnaidra there were four principal chambers according to the plan exhibited by Dr. Inman, two of which had their longest diameter to the north-east, and two to the south-east, thus following the same orientation to a certain extent. With respect to the possibility of these monuments having been roofed in, Mr. Fergusson's idea seemed to be that it had been done, not with large slabs, but with diminishing courses of small stones; but whether those could have been erected without at least a scaffolding of wood might be doubtful, and, as he himself had not visited the spot, it was a question on which he could scarcely offer an opinion.

Dr. CARTER BLAKE asked whether the word Hagiar Kim was

derived from the Greek *αγιος*, "holy," or the Arabic *hajji*, "pilgrim"?

A VISITOR observed that some of the chambers appeared to him to represent the testicles more closely than the two stones at the entrance to the holy place.

Mr. M. C. BUCKLEY made a few remarks, after which—

The PRESIDENT said no doubt the monuments in question were either of Phœnician or Carthaginian origin. The island has been occupied at different times by many nations. The first comers were Phœnicians. It was afterwards colonised by Ionians, or, according to some, by Greeks from Sicily. Then came Carthaginians, Romans, Arabs, Normans, French, and lastly the English. The appearance of the people bespeaks their African origin to a great extent. According to some authors, the Maltese language is derived from the Phœnician, but the base is Arabic, and in modern times many Italian and Greek words have been introduced. Many of the local names are of Arabic origin. Civita Vecchia, the ancient capital, was formerly called Medina, *i. e.* The City. The Maltese word *marsa*, signifying a port, bay of the sea, which is found in several local names, is an Arabic word. Hence Marsâla=high or western port, also the appellation of a city in Sicily. Dr. Carter Blake asked the etymology of the name of the two temples. *Hajar Kim* might translate in Arabic stone hill, stone of the mountain, or even resting stone; but perhaps the first is the most reasonable. *Jabl Khaim* would be =mountain tent, or perhaps rather hill station; *Jabl Kaim* would signify standing, resting, or foundation stone.

The etymology of Mnaidra is doubtful. The Greek *μανδρα* signifies an inclosed place, a monastery; but the word can hardly be Greek. The last part of the name may be connected with the Berber word *âdârâr*, *âdrer*, a hill. The Hebrew *meni* is fate, fortune; with the article, name of an idol worshipped by the Jews in Balylonia, together with Gad, and said to be the planet Venus, perhaps the same as *manat*, a goddess of the Gentile Arabians mentioned in the Kuran. A trace of this divinity appears in the proper name of a Phœnician inscription found at Sinope, viz., Abdmeni=worshipper of Venus. Further, the Arabic word *manna* signifies death. Besides the inscriptions given by Dr. Inman, there is another mentioned by Vassalli. It was found in 1761 in a subterranean sepulchre, at a place named Tabyn Isa. It ran *Al-Byn Bat Malek*, literally the son of King Batus or Battus, and is doubtless an epitaph. Ovid in the *Fasti* (lib. iii.) refers to this Maltese prince, in the verse ending *Rex ibi Battus erat*.

The meeting then adjourned.

SPECIAL MEETING.

Held at the Scottish Corporation Hall, Crane Court, Fleet Street, London, E.C., on Friday, 25th April, 1873.

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The minutes of the preceding meeting were read and confirmed.

Elections announced:—

FELLOWS, ARTHUR R. WORMALD, Esq., A.I.A.; WILLIAM HENRY DOMVILLE, Esq.; WILLIAM SAMUEL BURTON, Esq., F.R.G.S.

HONORARY FELLOW, PROFESSOR DE QUATREFAGES.

The President after making some introductory remarks, read the following letter from Dr. Broca:—

SOCIÉTÉ D'ANTHROPOLOGIE DE PARIS,
Paris, le 3 Avril, 1873.

A Monsieur le Président de "the London Anthropological Society."

MONSIEUR LE PRÉSIDENT,

J'ai transmis à la Société d'Anthropologie, dans la séance de ce jour, la nouvelle de la fondation de "the London Anthropological Society," et je lui ai communiqué la liste des membres de votre bureau et de votre concile.

La Société a reconnu, dans cette liste, des noms, qu'elle est, depuis longtemps, habituée à estimer, et elle m'a chargé d'exprimer à la nouvelle Société d'Anthropologie de Londres ses vœux et ses sentiments fraternels.

Je m'acquitte avec d'autant plus de plaisir de cette mission qu'elle me procure, Monsieur le Président, l'occasion de vous présenter l'expression personnelle de mes sentiments les plus distingués.

Le secrétaire général,
BROCA.

M. CHARNOCK,

Président de "The London Anthropological Society."

Mr. Joseph Kaines, T.L.A.S., read the following paper:—

THE ULTIMATE OBJECT OF ANTHROPOLOGICAL STUDY.

BY JOSEPH KAINES, T.L.A.S.

"PERHAPS Sociology may be easily looked on as absorbing into itself Biology as its introduction, Morals as its conclusion. When the word Anthropology shall

be in more common and sounder use, it will be a better name for the three sciences which collectively have man as their object, as its literal meaning is 'the Study of Man.'"

AUGUSTE COMTE.

I IMAGINE it to be the ultimate object of Anthropological science to benefit humanity. I imagine that it is for humanity we think and work, collect and classify the multifarious facts about mankind. I assume that the distinguished *savant* no less than the undistinguished keeps this, the prize of his high calling, constantly in view; and that to it he is ready to subordinate all that is individual and personal in his ambition. I cannot imagine that one who consecrates his life, and all that makes life dear, to the service of humanity, will forget, even for a moment, that from which he derives all and to whom he owes all. There may exist persons who cultivate science for such vulgar ends as their own fame or personal advancement. The noblest things are put by the ignoble to mean uses. *Non ragionam di lor' ma guarda e passa.*

It being granted (what I hope no one will question) that the aims and objects of Anthropology are to benefit mankind, let us endeavour to find by what means this can be best accomplished.

How best may Anthropology be made to serve Humanity? This for us is the great question. Our aim should be to subordinate all powers, wills, and forces engaged in anthropological study to this end, so as to make it a common end. We want the maximum of result for the maximum of exertion, and not what is so usual now—the minimum of result for the maximum of exertion. We want to know our powers, their amounts and differences, so that we may rightly apply them. Life is too short and too valuable, if rightly estimated, to allow of long and costly experiments for paltry ends. We must look well to the field of research, and our ability to travel over it.

The work and our powers—such are our subjects in this paper. It is well that we duly reckon how great our work is, that, while forming a true conception of the whole, we may each set about doing our part of it. This knowledge is needed to preserve us from falling into the narrow specialism which is the bane of modern science. Very many *savants* appear to have no idea that there is a large whole of which their special individual pursuit forms a small and sometimes insignificant part. They are as hopelessly specialist as the makers of pins' heads. O. W. Holmes says, in his humorous way, "These specialists are the coral insects that build up a reef. By and bye it will be an island, and for aught we know may grow into a continent. But I don't want to be a coral insect myself. I had rather be a voyager that visits all the reefs and islands the creatures build, and sail over the seas where they have as yet built up nothing. I am a little afraid that science is breeding us down too fast into coral insects. A man, like Newton, Leibnitz, or Haller used to paint a picture of outward or inward Nature with a free hand, and stand back and look at it as a whole and feel like an archangel; but now-a-days you have a society, and they come together and make a

great mosaic, each man bringing his little bit and sticking it in its place, but so taken up with his petty fragment that he never thinks of looking at the picture the little bits make when they are put together. You can't get any talk of these specialists away from their own subjects any more than you can get help from a policeman outside his own beat." The tendency of the time is towards specialism in all departments of scientific thought and inquiry. Lists of scientific books bristle with monographs upon every conceivable thing from the "Elephant" down to the "Sponge." Nothing in natural history is too small for a big book to be written about it. Let a social purpose dominate our studies, and it will kill specialism. Specialism, always hurtful, is nowhere more hurtful than in anthropological research.

The field of research. Anthropological science has been divided into five parts—Historic, Archaic, Descriptive, Comparative, and General. A brief glance shows that anthropology is intended to comprehend everything that is knowable about man—past and present—barbarian, savage, or civilised. Anthropologists seek to acquire full and complete knowledge of what man has done, thought, or suffered,—and of his habits, customs, rites, and ceremonies, that his moral and mental genesis may be traced and described. Anthropology, in fine, includes Archæology, History, Science, Polity, and Religion. Indeed, if the term be fully interpreted it is "a science of things in general" concerning mankind. There is a fear that such a science may be too large for proper treatment, and perplex by its generality and vagueness. Science is *organised* knowledge. It behoves us to remember this at a time when so many scientific workers are mere hoarders of facts, unblessed with a sound notion of what really constitutes science. You might as well tip up a cart-load of bricks and call it a house, as to call a mere heap of facts science.

I imagine that it is the main purpose of our society to encourage a wide treatment of special subjects by minds penetrated with true conceptions of scientific wholes. I imagine that while each worker, by a "natural selection," takes the part for which he is best fitted, he understands its relation to the other parts of scientific research; the part will be well done or ill done in proportion as he knows or is ignorant of this. Anthropology is something more than flints, bones, cairns, stones, kitchen middens, and tables of the races, or varieties of mankind, and anthropologists should be something more than mere connoisseurs of such things. The field of inquiry, as has been said, is co-extensive with Humanity, and the array of facts presented by it is enormous. What to select is the difficulty, and how are we to know that some facts are more useful, and therefore more valuable than others? We must have a standard by which to try them, or we shall be embarrassed and bewildered by their variety and multiplicity. It is clear all facts cannot be of equal value, and if they were life is not long enough to allow of their classification. We must measure our strength and the task. Labour is abbreviated by order and method. Besides the scientific, there must be a philo-

sophical method. It is not enough that we arrange our facts in their natural order. There are other sciences, to be ignorant of the fundamental principles of which is to know little or nothing of our own. Goethe says that he who knows one language only, does not know that. So it is with science. The student should acquaint himself with the doctrines or philosophy of all the sciences, rising from the simplest to the most complex.

Man—and his life on this globe—what studies do these not suggest? Studies of the telluric, meteorological, astral, geographical, floral, faunal conditions which have existed in æons long passed, and which still exist. In how many ways these conditions have helped or hindered man's progress—physically, socially, and morally. Montesquieu has enlarged, in his philosophic way, on the effects of climatic conditions on man, in his *L'Esprit des Loix*; but he limits his inquiry, mainly from the greatness of the subject, to civilized man. What tremendous interspaces exist between man in recorded and man in unrecorded times! Little remains to us of unrecorded man, except here and there a few bones and skulls, and flint and bronze weapons of warfare and husbandry. These have a certain value, and their study has not been destitute of results; but, in the hands of mere archæologists they have acquired an exaggerated importance, and the study of prehistoric archæology has become portentously formidable from the huge dull treatises which have been written about it by persons eager to acquire notoriety. That the too absorbing study of such things has a most unwholesome effect upon natures of contracted mental range and moral sympathy may be gathered from the address of the President of the Anthropological Department of the British Association at Brighton, 1872, who uses these words, which are noteworthy only in such a connexion:—“As to the myths, religions, superstitions, and languages with which they [the material relics of our prehistoric ancestors] were associated, we may content ourselves by devoutly thanking Providence that they have not been preserved.” I will not insult your understandings by asking whether of the two we should value the most—the moral and social ideas—or the flint weapons of prehistoric man.

The study of the less civilized and uncivilized communities of mankind affords a rich harvest of results in showing along what lines our own developments, moral, intellectual, and social, have come. No one who studies the genesis of our manners, fashions, rites, ceremonies, customs, or even religions, can avoid being struck by the many traces of barbaric origin. Nothing is too simple or too complex for these traces. Our bow to a friend in the street, and salutation of a stranger as “Sir,” equally with our religion penetrated with awé and permeated with anthropomorphism, prove this.

In order that we may learn all that can be learnt of savage and barbaric life, we must establish moral relations wherever possible; and these are more generally possible than some anthropologists may be disposed to admit. We must do with the backward races (or varieties) of man what we do with the highest domestic animals—endeavour to understand their good and bad points, so that we

may encourage the one and discipline the other. We shall never be other than a curse to them if we spare ourselves this trouble, and, as for learning anything about them worth knowing, that will be impossible so long as we treat them as out of the pale of humanity, and, I had almost added—of animality. Difficulties undoubtedly attend such an enterprise, but not insuperable ones, as such experienced and distinguished travellers as Mungo Park, Bruce, Burton, Livingstone, Huc, Winwood Reade (with many others that might be mentioned) bear willing testimony. Difficulties, moreover, are transfigured by noble men, and serve high uses.

We shall study anthropology to little purpose if it does not beget in us respect and affection for mankind of all climes and at all stages of mental and moral growth. The more earnestly we study the warmer should grow our attachment to all men. Never shall we become anthropologists till a profound conviction animates us, that our superiority in culture is of value in proportion to its usefulness in advancing the well-being of our fellow man. Towards this end, the superior races should establish a protectorate over the inferior races, *and in their interests only*. When this is done, the reproach that the contact of Western civilisation has been an unmitigated curse will pass away.

I believe the time is not far distant when a knowledge of anthropology will be felt by the statesman and legislator to be as necessary as that of reading and writing. The egregious blunders in governing diverse races or communities that have been made by rulers would be laughable were they not so sad. Laws and regulations have been made (seemingly) without any reference to their natural applicability to those who were expected to abide by them. Racial differences, and the traditions of long ages, have been ignored as things of nought; and habits of thinking and acting persisted in for many generations have been deemed as easy of alteration or obliteration as the last new fashions. The ability to govern is supposed to be immanent in all persons who have succeeded in trade or at the bar, and who have good balances at their bankers'. If, as a successful manufacturer, a man has shown himself intellectually and morally incompetent to adjust equitably a dispute in his own works, he is nevertheless deemed, in virtue of this defect, fully capable of ministering to the well-being, social, intellectual, and moral, of large and varied sections of mankind, of all varieties of opinion, every grade of culture, and of a social environment almost infinite in its complexity. Being unable to multiply two by two, he is set to do a double-rule-of-three sum into equations.

As we advance in knowledge we shall rise to the conception of politics as the greatest of all the sciences, and that, indeed, to which all the other sciences are but preparatory stages.

I will say little of the many social uses of Anthropology, amongst which may be counted those which tend ever to lessen the distinctions of race by increasing our sympathy with and respect for the great nations of the West. These nations have a common destiny, and should be knit together by a common friendship. Each brings to

the civilization of the future (as to that of the past) something the others cannot do without. In all great social problems of enormous import are being solved. The silly rivalries between each great section of the West, fostered by anachronisms interested in opposition, will disappear as the peoples are brought into contact with each other, and learn in how many ways they can be nobly useful in pushing forward true civilization. Anthropology will discover the real worth of mere material prosperity, and substitute itself for the vulgar emulation which wealth engenders. It will broaden the area of our moral vision by showing us that men have higher and nobler functions than those even of trading with each other, although the trading be ever so perfectly regulated by the modern religion of competition—the only religion people generally believe in. Perhaps at no distant date it may come to be admitted that “to push trade” is hardly a sufficient reason for disregarding, as purely sentimental, both individual and international morality.

I feel that it is not necessary that I should dwell on the five great branches of our science : they have been enlarged upon by my predecessors in this Society, especially by Dr. James Hunt and Mr. Luke O. Pike, with a fulness and ripeness of observation I cannot equal. There are passages in the paper of Mr. Pike on the “Methods of Anthropological Research” which can hardly be too often quoted in this connection. “It is impossible to lay too much stress on the fundamental doctrine, that all Anthropology has for its end the good of the human beings of the present and the human beings of the future.”

“Anthropology means the collection of facts, *not for the sake of the facts themselves*, but for the value of the laws to be discovered in them for the sake of future generations to be benefited by them. It means, if not peace on earth, at least goodwill towards men ; and it would mean peace on earth if its enemies would allow it to be at peace. *It means the only kind of philanthropy which can be of service to mankind—philanthropy founded upon science.*”

Who is sufficient for the wide and deep studies involved in the very conception of Anthropological science? What life is long enough for their being wrought out? Those of us who have formed a moderate estimate of our own powers feel that, as servants of Humanity, we must put ourselves at the relative point of view. It is only as science is subordinated to the well-being of Humanity that it has any *raison d'être*. One of the most earnest and distinguished of modern thinkers, Mr. Frederic Harrison, has eloquently expressed himself on the two methods of treating all phenomena—the Relative and the Absolute. Nothing can be added to the clearness and vigour of his language.

“That order is the ultimate destiny of all our knowledge is so obvious that the effort to found it at once can be met only by one objection worthy of an answer, and that is that the aim is premature. It is very easy to see that the earlier attempts, when even astronomy was incomplete and the moral sciences outside the pale of law, were utterly premature. But whether the task is premature now is

entirely different. After all, it is one of those questions which no *a priori* argument can affect. It is not premature if it can be even approximately done. Yet the mere suggestion of it arouses a myriad-headed opposition. In every science and every sub-section of a science a specialist starts forth to tell us that generations of observers are needed to exhaust even his own particular corner in the field of knowledge. And if one science is to become but the instrument of another, if one kind of inquiry is to be subordinate to another, we should fetter, they tell us, the freedom which has led to so many brilliant discoveries, and leave unsolved many a curious problem."

"If the systematizing of knowledge will be premature before all this is accomplished, it will always be premature. The end for which we are to wait is one utterly chimerical. No doubt there are no bounds to knowledge, any more than there are bounds to the universe. As Aristotle says, thus one would go on for ever without result; so that the search will be fruitless and vain. Nay, if we go by quantity, estimate our knowledge now as compared with the facts of the universe, we are but children still playing on the shore of an infinite sea. . . . A life of toil may be baffled by the problems to be found in one drop of turbid water. Ten generations of thinkers might perish before they had succeeded in explaining all that it is conceivable science might detect on a withered leaf. And whole academies of historians would not suffice fully to raise the veil that shrouds a single human life."

"Were science pursued indefinitely on this scale, not only would the earth not contain all the books that should be written, but no conceivable brain could grasp, much less organise, the infinite maze. The task of organisation would thus be made more hopeless each day, and philosophy would be as helpless as Xerxes in the midst of his countless hosts. The radical difference between the positive and the current philosophy, that which feeds the internecine conflict between them, is that between the relative and the absolute. Looked at from the absolute point of view—that is, as the phenomena of matter and life present themselves from without—the task of exhausting the knowledge of them is truly infinite, and that of systematising them is truly hopeless. From the relative point of view philosophy is called on to exist, not for its own sake, but as the immediate minister of life. To utilise it and to organise in order to utilise it, is of far higher importance than to extend it. It judges the value of truths not by the degree of intellectual brilliancy they exhibit, or the delight they afford to the imagination, but by their relation in a broad sense to the problem of human happiness."

It may be objected that the adoption of the relative method sets limits to human inquiry. In a sense it does. It is in the interests of the individual as much as of Humanity that the limits are set. It renders the work and the workers more complete, and imparts to both unity. Neither life nor thought is capable of indefinite extension; even if they were there should be a standard by which to test human usefulness other than the scientific one. Talk of

limits ! surely the phenomena directly bearing on human well-being are enough to absorb the thoughtful energies of all workers for ages to come.

Let it be shewn that a knowledge of Anthropology enriches the intellect with imperishable truths while it enlarges the heart ; let it be shewn that it improves the quality of our statesmen by widening the range of their moral sympathies, making them in the truest sense cosmopolitan ; let it be shewn that it begets in the more civilized chivalry and protection to the less civilized ; let it be shewn that Anthropology teaches not alone love of one's own kind, of whatever zone or clime, but a thoughtful tenderness for all forms of life, even the most insignificant, and it will never lack loving and reverent students and adherents. To accomplish such glorious results the method of Anthropology must be moralised. I have here indicated, imperfectly I know, in what way that moralization may be effected. The student must ever keep before him the ideal Humanity, whose loyal servant he is.

DISCUSSION.

Mr. LEWIS, while concurring with much that Mr. KAINES had said, thought that he had, by a very natural reaction, become a little too severe upon specialists, because if there were no specialists to collect facts there would be no facts collected from which Mr. KAINES and others could generalise. Most sciences had, moreover, become so elaborate that few could hope to attain great excellence in more than one or two special departments. At the same time it was well for everyone to bear in mind that his own department, whatever it might be, formed but a very small part of a very large whole ; and he presumed that it was rather Mr. KAINES's intention to place this fact forcibly before them than to discourage any form of inquiry, however minute.

The Honorary Secretary then read the following paper :—

ON THE INFLUENCE OF MAN UPON MAN AND THE LOWER ANIMALS,

BY T. INMAN, M.D.

It has for many years past been with me a matter of doubt whether observers have sufficiently considered the influence of man upon men, and upon what are called the lower animals. The matter is certainly worthy of being taken up by Anthropologists, for we may safely affirm that correct notions upon this point are all-important if we wish to understand the science upon which our society treats.

At the present time, and during preceding years, many philosophers have assumed certain things, and upon them have built a superstructure which, in my opinion, cannot be supported. The genius of Mr. Darwin, in our own day, has induced many men who are versed in comparative anatomy, and in the knowledge of the

habits of animals, to entertain the belief that all organisms, however complicated, have sprung from a simple monad. This hypothetical unit is supposed to have been variously combined with others, or to have developed itself by external influences until it has gradually reached a sum of variations which may be counted by millions.

The nature of the argument upon which the theory is built may be shortly summed up thus :—"Strong resemblance proves approximate identity." If, that is to say, all the letters which represent the sound of A throughout the world are similar to each other, only differing in their complication or simplicity, it is reasonable to believe that all had a common origin. So far, probably, all thinkers would agree. But if any one were to argue that B comes from A because both have a straight down-stroke, and that C is the offspring of B because one has two curves and a perpendicular and the other is a curve placed perpendicularly, the reasoning could not be agreed with. Or, to use another illustration, I have before me English farthings, halfpennies, and pennies, some made of copper and much worn, some brilliant and new, and others consisting of bronze ; by their side I have silver pennies, three-penny pieces, groats, sixpences, shillings, florins, half-crowns, crowns, ten-shilling gold pieces, sovereigns, and guineas : all resemble each other far more closely than an elephant resembles a whale, or a gorilla a man, yet I do not believe that the most enthusiastic numismatist would say that any one coin was developed from another, or that copper, in the course of ages, became silver, and silver became gold.

What every connoisseur would say probably is this—"I allow that all the money which you show me bears a similar stamp. I allow that according to current ideas silver is a less base, or a higher-class metal than copper, and that gold is superior to silver, but that is no proof that in the course of ages copper has become bronze, bronze silver, and silver gold. What I do gather from this numismatic collection is, that all the coins were struck by the mint of a certain country." Still farther the pundit might go on to remark, "I will grant you without argument that there is a certain similarity in the metallic currency of every known nation ; that some coins are iron, lead, zinc, shell, copper, brass, bronze, silver, gold, platinum ; that some are square, others oblong, others cylindrical, some discoid, others ring-like or semi-lunar ; but nothing will induce me to believe that a half-moon developed into a ring, that into a disc, that again into a square, and this into a sphere."

The argument therefore for "development" based upon "similarity" is weak, nor does it receive strength from the assertion that certain creatures who are supposed to have "descended" or "ascended" from others must be related with their presumed ancestors, because they have organs which are useless to them, although a similar set of organs was of value to their supposed progenitors. But, to revert to our monetary illustration, we may affirm that every coin bears something about it which is essentially useless to the holder thereof, but which tells a tale to the maker and to the numismatist.

The story which such testimony bears to the latter is that the

coin was struck by authority—not by one individual who made one die and then left the bits of metal to increase and multiply, but by a ruling power which acted uniformly or otherwise. If every known coin were perfect in its kind, then the numismatist would infer that the mint master did not require education.

Having premised this much, and having stated my belief that the universe has a Mint-master who can coin whatever form of money he may choose, I propound the question which forms the text of my thesis:—"Do animals educate themselves beyond a certain point without being trained by man?" and, still farther, "have certain classes or genera of men ever changed their habits until taught by others to do so? We may vary the last question by asking whether human beings wholly deaf and dumb would ever attain to a high standard of knowledge if they formed a company amongst themselves. For example, could people who only communicate by signs teach astronomy to each other on a starlight night, or discourse on meteorology in a thunderstorm?"

It is advisable to clear the ground by a distinct enunciation of my opinion. I affirm my belief that the Mint-master has made a number of coins all having something in common, but all different from each other both in mass and detail, and that there is variety in man as among elephants, dogs, and marsupials. Some races of men are by nature, or, to put it more clearly, have been *created* to be "masters," whilst others have been framed to be "subjects."

What are the teachings of History as regards mankind? Beginning with America, I affirm that throughout that vast continent there is no evidence of any advance towards what we designate "civilization" until the formation of the Mexican and Peruvian empires. From everything which the Spaniards were able to gather, both these monarchies originated about the same period of time, and native history or tradition assigned the origin of both states to the advent of "a pair of strangers." The Aborigines had for an unknown period been uncivilized—"a stranger" came and taught them; then, at a bound, they sprang to a height of political perfection unknown to or rather unequalled by any other people of which history or tradition tells us.

In like manner, so far as we are able to read the history of remote times, the Autochthones of Hindostan were formerly as "savage" as the inhabitants of the Andaman Islands are at the present time; but when the Aryan family crossed the Himalayas the Indians began slowly to improve. From everything which the remains of ancient annals teach, the Babylonians from time immemorial were acquainted with astronomy. Of the extent of their acquirements it is unnecessary to treat, but we may safely affirm that there was not a single Western nation which knew anything of that science that did not learn it from the Chaldees.

Again, on the vast continent of Africa there are races probably as old as the country on which they dwell, yet we are unable to find in any portion of the land a single race, family, or clan that ever rose to greatness. The Egyptian rulers who utilized the

Nubians, and the Aborigines about the Nile, were, there is every reason to believe, a foreign *white* race, and, consequently, unlike the natives of Egypt, who were red. Time would fail me to record the localities in which there are to be found marks of an Autochthonic people, who have been conquered by a foreign race, but who have in turn ousted their rulers, and then relapsed into their primitive state.

Without dwelling farther upon this point, let me invite attention to what are called the lower animals. There are certain animals who are capable of being trained by man, but who are unable to train themselves beyond a certain point. Horses, elephants, and dogs are the best known of these. In like manner there are some human classes who, having no propensity to educate themselves beyond a certain point, can be raised to a high pitch of civilization by the influence of other men. The former are human brutes, and have a very low status in the scale of humanity. The Andaman islanders are an example of such beings. But there is on the other hand a race of intellectual nobles, a class of men who from the very earliest dawn of history have shown themselves to be possessed of the energy and will of intelligent masters, and there is no existent civilization which may not be traced to such a people, race, or family.

When we look abroad and discover that all the known races save one have, to use a common expression, stood still for ages, and have advanced only when they came into contact with one wholly different from them all; when we discover, moreover, that this exceptional race is a white one, that there is evidence of its once having been numerically small, and that it now bids fair to be the dominant family on our globe; when, in modern times, we see the sure but quiet way in which it is supplanting other families of enormous dimensions,—we are justified in the belief that the whites are essentially different from and superior to the coloured races.

Turn where we will, wherever there is evidence of the existence of man there is also evidence of two races. These may be called the stone and the metal men. In every known part of the world where these two have come into contact with each other, the metallurgist seems to have come from the outside. The stone-users did not insensibly glide into the employment of bronze. We do not, then, assume too much when we say that the metal workers were of a different race to the men who only manufactured stone implements. If, instead of weapons of war and of the chase, we take an intellectual test, we find very nearly the same result; there is no sign of the existence of a literature in any country whatever where the white race has not penetrated, nor does my memory supply me with one single instance in which coloured races have systematically taught children anything beyond the arts of hunting, fishing, &c.

If, then, from the very earliest period to which man can be traced back there is evidence that there were in every locality a resident lot of men who were as rude as the New Zealanders when these were first discovered, and a second lot who travelled about the

world—as white men do to-day—to exchange articles of luxury, such as beads of coloured glass, daggers, spear-heads, knives, and swords of bronze or iron, we have a right to assume that such races have been synchronous. If synchronous, it is not fair to assert that the savage developed into the civilised, or *vice versâ*.

The conclusion, then, to which I have come is that the mint-master, a being of whose existence I can only form an idea from the money which we see, has made a vast variety of coins, which have something in common, and other points in which there is difference between individuals. I do not believe that old ponies become horses, or half-sovereigns develope into guineas. I can, on the other hand, imagine that a penny may be so worn away as only to be the weight of a farthing.

When I affirm that evidence exists of there having been a highly intellectual race whose influence has helped to educate every other, I may be met by the argument that this is an “assumption” without any shadow of support. This, however, is not the case, and I may illustrate my view by a very important fact which was communicated to me by Professor Olmstead, of New York County. He prefaced his observation by the remark that the power to make parti-coloured glass beads indicates a high condition of art and knowledge to which no single barbarian people has ever obtained, and he added as a corollary that the more complicated the bead the greater the probability that it indicates a long experience in the manufacturers. He then took me to the Mayer collection, in Brown’s Museum, in Liverpool, and pointed out a large bead of which only about six examples have been discovered, and these have come from North and South America, Africa, Asia, and Europe. They are in every way remarkable, and have been formed thus:—A hollow cane of opaque white glass has first been made, this has then been coated with a second layer of a different colour, this by a third, this by a fourth, and so on until a rod has been made about three quarters of an inch in diameter. This has then been divided into lengths of about one inch, and each fragment has had both its ends polished so as to present six squared facets, cut so obliquely as to make a great show of the various colours. All those which he had seen were of the same pattern, and might all have been made by the same workman out of the same rod of glass. All had been found under such circumstances as to lead to the idea that the barbarian owner had been a man of mark. Still farther, as the professor showed me, one could see in how high an estimation these beads were held, by the fact that in almost every tomb where beads have been found, there was one, and sometimes more, which evidenced an attempt at imitation of those in question—the counterfeit being made of pot and painted.

When we attempt to form an idea of the original home of the highest race of man we find ourselves groping in a dark maze, all that we can conjecture is that it inhabited some part of the highlands of Asia, that it lived long before the age of the Vedas, that from it emanated the Persians, Medes, Greeks, Italians, and all

those who are called the "Indo-Germanic." Whether that race was related to the Chinese and Japanese, or whether the Oannes who is said to have instructed the old Mesopotamians was one of them, we have no means of knowing. With our present information it would be wild to speculate whether the race in question had anything in common with the Phœnicians. Whoever they were, or wherever they lived, I believe that they never were barbarians, and that they did not rise from any inferior stock; they were, in my opinion, the instructors of the world of men, the first who trained animals, and who have ever steadily striven to raise other races to their own higher level.

The Honorary Secretary then read the following communication from Dr. INMAN on the origin of the human race:

There is a general resemblance in feature and figure amongst the Assyrians, Chaldeans, Jews, and Phœnicians, and a language common to all; but these differ from the Aryan race in general features and in tongue. It seems probable that the Indo-Germanic race came into contact with the Phœnician or Shemitic people in the highlands forming the watershed of the Euphrates and Tigris. Did the Aryans teach the Chaldeans astronomy? It seems not, for when the former invaded the Punjaub, we find from the Maha-bhārata that the art was scarcely known amongst them at all. Did they teach the proto-Babylonians general knowledge? It seems not, for the latter were more learned than the Indo-Germanic tribes. Then, again, legend declares that Oannes, a seaman, taught the Babylonians, which indicates a possibility that there were at that early period clever mariners. Who were they? History seems to assign an Eastern origin to the Phœnicians, whose first settlement was an island in the Persian Gulf, after which they sailed up the Red Sea, crossed the Isthmus, and settled at Zidon, whence they proceeded to colonize Africa. These Phœnicians, however, had the same language as the dwellers on the Tigris and Euphrates; therefore it would seem that the latter were an early, and the former a later, emigration from some more Eastern country not now known—a country which may, indeed, possibly be now submerged and wholly lost to knowledge. Whatever we may say about these matters, it seems to be certain that the Babylonians were astronomers six thousand years ago, and as far as my reading has gone I am not aware of any other people who knew much about the planets and the constellations. The knowledge of the Egyptians was very limited. Thus in the very twilight dawn of history we find at least two, and probably three, highly-educated peoples—the Aryans, who had a very elaborate language and grammar; and the Chaldeans, who were profound astronomers; the probable third is the hypothetical people from whom the Phœnicians came, who understood ship-building, the arts of civilised life, and the benefits of trade. Nor must we altogether forget China, and her ancient civilisation, the use of printing, and the knowledge of stereotyping in Thibet. But

when we prolong our inquiries into Ancient Chaldea we discover that the people knew the art of engraving upon such hard stones as the Agate, one which involves the use of the lathe or lapidary's wheel, and the probable use of magnifying glasses, and some knowledge of drawing. My argument is, not that these were the original men, but they represent for us the original race of men who were born with knowledge as a bee is with one set of instincts ; a lion with another, and a horse with another. I believe that the hypothetical original race never rose from savagedom or monkey life.

As regards the origin of the human race, when one attempts to trace back into antiquity the probable origin of the civilised nations, everything points to a highland in Central Asia. There is a remarkable but little-known work which, amongst other matters, treats of this, called *Arts de la Grèce*, supposed to have been written by D'Harcenville. It is a wonderful mine of learning, and the reasoning is generally good ; it was published by Appleyard, in London, 1785, anonymously. One of the curious problems for the learned is the probable origin of the Shemites, *e. g.* the Arabs, who may or not be of the same race as the Assyrians, Babylonians, and Phœnicians, but who speak a cognate language though they, write it with a peculiar character.

DISCUSSION.

Dr. CARTER BLAKE, while agreeing in much which Dr. Inman had expressed, failed to see the analogy between the inorganic coin and the living plant or animal, as it was possible that a different series of laws might exist for the two divisions of nature. He also demurred to the assumption that man originated on the plateaux of Central Asia, of which there was absolutely no proof whatever in history or tradition, giving full weight to M. Bailly's researches. The paper, however, was a sign of the healthy reaction which had taken place in the minds of scientific men against *la science mousseuse*. There were many objections to the Darwinian theory of the origin of man which did not exist to the Derivative theory. He introduced illustrations from the analogy of the bones of the thumb in man and ape, as showing how the change which might operate in bringing the *entocuneiform* bone of the ape more into the human form, would produce uselessness of the limb, and consequent starvation in the struggle for life. On the whole he was in favour of Dr. Inman's views.

Mr. LEWIS thought that the incident of the beads mentioned by Dr. Inman was also of great value as illustrating the extent to which trade had been carried on in "un-historic" times and places ; many equally interesting facts of the same nature existed, and would form material for a valuable paper if collected and analysed, but he knew of none so striking as that under notice.

The Meeting then adjourned.

SPECIAL MEETING,

*Held at the Scottish Corporation Hall, Crane Court, Fleet Street,
London, on Friday, 9th May, 1873.*

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The minutes of the preceding meeting were read and confirmed.

Elections announced :—

Fellows, C. H. E. CARMICHAEL, Esq., M.A.; W. C. S. CLAPHAM, Esq., L.R.C.P., M.R.C.S.; A. L. ELDER, Esq., F.R.G.S.

Local Secretaries, T. MITCHELL, Esq., H.M. Consul, St. Petersburg; PROFESSOR CHARLES WELLS, Constantinople; Dr. JULIUS SCHVARCZ, Pesth.

The Honorary Foreign Secretary read the following paper :—

NOTES ON THE KITCHEN-MIDDENS OF SÃO PAULO,
BRAZIL, AND THE FOOTPRINTS OF ST. THOMAS,
alias ZOMÉ.

BY CAPT. RICHARD F. BURTON, F.R.G.S., V.P.L.A.S.

THE immense Kitchen-middens of the Brazilian coast have been wholly neglected by travellers. I believe myself the first foreigner who called attention to these pre-historic deposits, and who sent home specimens of stone implements such as are contained in all of them.

It is not improbable that the whole coast, from the Oyapoc and the Amazons to the Plata and beyond, is studded with shell-mounds, which in places rise to the rank of hillocks. On the bay of Rio de Janeiro I heard of them at the Ilha Grande. The monographer Fray Gaspar da Madre de Deos,* *Memórias para a Historia de Capitania de São Vicente, hoje Provincia de São Paulo, &c., &c.* (first published in 1747), informs us that they served for lime since the country was discovered, that they do not extend north of the Bertioga sea-arm (on the contrary they exist about Ubatuba), but stretch down the coast to Cananéa, and to the Province of Sta. Catharina. A local history of the Southern Province of Paraná,

* This author was born at Santos in 1730. His house is still shown in the Rua de Santo Antonio; it is a low solid construction with projecting eaves, massive corbels, and the latticed balconies of Malta; it is church property, and when I saw the tenement it was occupied by Sr. Antonio de Lemos. The monographer of his native province was a Benedictine, and a most laborious as well as an exact writer: I found that he had overhauled all the documents of the Carmo at Santos. He died in 1802, and was buried in the church of São Bento, in the south-western part of the town. He is believed to have left the MS. of a second volume: unfortunately it has disappeared—probably stolen.

which unfortunately disappeared from my small collection, gives a long and detailed account of them, and, indeed, their importance as the only depôts of lime in a granitic region renders them not likely to be neglected by the native authorities, who know the country well.

The Portuguese call them *Ostreiras* (oyster beds), the "Indian" name is *Sambaqué*, or *Sambaquí*, bearing the same signification. As in Africa the cold weather drove elephants and other luxurious beasts from the high interior to the coast, so the exceedingly sensual semi-nomades of the Middle Brazil employed themselves during summer in hunting upon the inner plateau, averaging, like the Aram of Syria, some two thousand feet above sea level, especially in May, June, and July: during winter they followed their game to the lower and milder regions, where they built ranchos among the mangrove grounds, and eked out their scanty and irregular fare, while the animals were breeding, with the fish, the oysters, and the muscles which formed the staff of life of many an Ichthyophagic family. Each household occupied its own heap upon the banks of some sweetwater streamlet, and thus the *Ostreiras* are often apparently double. Those who died during the winter were buried, as will be seen, among the fragments of their feasts.

The antiquity of these *Kjökken-möddings* is at once apparent from their size: the lower strata also are almost petrified by long-continued heat and pressure. The stone implements are rude to the last degree, serving only to smash or open shells, and contrasting strongly with the beautifully-finished weapons used for fighting. And it must also be borne in mind that upon this part of the coast the "Indians," such as the Goyaná (plural Goyanázes) of Santos and the Carijós of Cananéa have been extinct for nearly three centuries. It is impossible to divine when the foundations of the heaps were laid, and thus I am justified in calling them "pre-historic."

Around the Bay of Santos there are or rather were about twenty of these deposits. They are noticed by Fr. Gaspar as follows:—"Tanta he a antiguidade d'estas *Ostreiras* (assim lhe chamão na Capitania de S. Paulo, os Indios as denominavão *Sambaqué*) que a humidade pelo decurso dos tempos veio a dissolver as conchas de algumas d'ellas, reduzindoas a huma massa branda, a qual petrificando se pouco a pouco com o calor, formou pedras tão solidas, que he necessaria quebralas com marrões ou alavancas, antes de as conduzirem para os fornos onde as resolvem en cal. D'estas conchas dos Mariscos que comerão os Indios, se tem toda a cal d'esta capitania desde o tempo da fundação até agora, e tarde se acabarão os *ostreiras* de Santos, S. Vicente, Conceição, Iguaque, Cananéa, etc. Iguaes montinhos se encontrão na praia que vai da villa da Laguna ás Torres na Provincia de Santa Catharina. Na major parte d'ellas ainda se conservão inteiras as conchas, e n'algumas achão se machados (os dos Indios erão de seixo muito rijo), pedaços de panellas quebradas e ossos de defuntos, pois que se algum Indio morria no tempo da pescaria, servia de cemiterio a *Ostreira* na qual depositavão o cadaver, e e depois o cobrião com conchas." Of the remaining *Sambaqués*

I visited all the most important. Before describing them, however, it may be as well to give a short topographical view of the far-famed bay.

The traveller from Rio de Janeiro, after running along the continental island of Santo Amaro, which appears to be part of the coast, turns its south-western projection, the fortified Punto Grosso, fronting the Punta de Mondubá, on the western mainland, and finds himself opposite what appears to be the *embouchure* of a mighty river, some seven miles broad. A few yards of progress shows him that the old Rio de Santo Amaro de Guaimbé, now the Barra de Santos, is a marine outlet composed of two arms. Its western is the Rio de São Vicente, picturesque and classical, but useless: its present shallow bar will not admit the smallest craft, and I have reason to believe that the level of the land has here risen. The eastern is the Santos River proper, which leads up to the town, forming between it and the mainland a broad and winding sea-arm, which receives and conducts to the Atlantic the sweet-water drainage of the tall hill-curtain on the north.

Fast locked in the embrace of two strong arms lies Santos Island, which books call the Ilha de São Vicente. There was till lately a hot dispute whether this stream or the Bertioga water is the place first visited on January 2, 1532, the fête of St. Vincent, by Martin Affonso de Souza, the explorer and first donatory of the coast. Even to mention the arguments *pro* and *con.* would occupy far too much space. At any rate, the western stream has succeeded *per fas et nefas* in keeping the name. The fine strip of sand which, backed by low vegetation, faces the sea is the Praia do Embaré; here the Santistas have built small villas and cottages, and flock during the summer to enjoy the sea-bath, and shoals of fish abound. About the middle of the island, and forming a crescent with the hollow to the south, is an excellent landmark, the hill of Monserrate, quarry-gashed, green-clad, and surmounted by a useless white-washed chapel, and a useful signal staff. Evidently in geological ages this lumpy ridge of gneiss rock, granite boulder, and felspar clay was the only breakwater of the sea which washed the feet of the semi-circular Serra of the mainlands, and the rest of the island was formed long afterwards by its *débris* and by the dash of the waves.* And as the western part of the island is rising, so I believe the eastern to be subsiding; these secular oscillations of land should be verified, and carefully be studied before laying out hydraulic and other public works.

We now run up to Santos River some six miles to the town, and bend to the east, to the north-east, and finally to the north-west. As we progress the eye falls upon the grandiose amphitheatre of mountains:

* In 1857 the following borings were made by Mr. Neate, C.E., at the Custom-house pier, Santos:—

Surface humus	.	.	.	.	6 to 16 feet.
Good sandy silt	.	.	.	.	14 to 24 "
Silty clay	.	.	.	.	16 to 27 "
Soft clay	.	.	.	.	46 to 66 "
Gravelly sand	.	.	.	.	26 to 41 "

wall-like to the west, peaked to the north, and falling into a gap on the east, shaggy and rankly forested to the summit, and generally tipped with heavy clouds, it forms the back-ground of the bay. Here we have—

A serra altiva, que os cabeços ergue
Calvos, arrepiados, ou cingidos
De donosas palmeiras.

JOAQUIN NORBERTO.

This is the Serra do Mar or da Terra Firma, a prolongation of the Brazilian eastern ghauts, whose section about Rio de Janeiro, the Serra dos Orgãos, is much admired. The maximum height about Santos may be 3500 feet.

The sweep of the noble amphitheatre induced the Goyanâzes inhabitants to call the island Endoaguassú or the "great mortar" (formed of a tree-trunk). Like all the tribes of these parts, they gave names as picturesque as they were musical; some of them are the most beautiful and expressive that can be imagined, and we have only to regret when one falls into disuse. Hans Stade (cap. 14) who corrupts the word to Iwawasupe, justly makes the mortar formed by the Serra rim with the hills of Santos Island. Fray Gaspar, followed by Varnhagen (vol. i. 141) gives Enguaguaçu with its Portuguese equivalent Pilão Grande or Monjolo; the first word, however, should be Endoa, Endua, or Indoá (in Gonçalves Dias). Varnhagen also is hardly justified in asserting that the great mortar is derived *de um destes engenhos primitivos que alli havia*. The moderns, combining the semi-circular rim of this "hole-in-the-wall" with the perpetual downpour from clouds condensed by the cold mountain-tops, compare the formation with another article of domestic use. The simile suits perhaps even better, but it is decidedly unsavoury. In Hans Stade, also, we find the settlement of São Vicente called "Orbioneme," which after writers travestied to Orpion, and, not having the fear of the French before their eyes, to "Morpion." "Não sabemos porque," says Varnhagen: in Purchas, however (v. 1242), we find Warapisumama, and we may trace part of the root to Guara, the Ibis, of which many were here killed. It will not be necessary for me here to describe the complication of bays, points, streamlets, and sea-arms which divide Santos Island and town from the mainland.* During our visits to the Sambaquês we shall learn enough of them.

The first Kitchen-middens which I visited were in the shaggy and lofty island of Santo Amaro, which forms the left bank of the Santos River. They are chiefly upon the shores of the Bertioga, a riverine sea-arm dividing the island from the mainland. The large heaps of Berbigões (the venus shell) nearest the western mouth, have now mostly been removed for lime-burning, and the implements and bones have been hopelessly dispersed. Further on is another morne or earth cliff which has long supplied my friend M. Porchat with lime.

* There is a hydrographic chest of Santos harbour, by Admiral Campbell, of the Portuguese navy. No plan of the town was published in my day, but the municipal chamber has one on a large scale, (signed) C. A. BRESSEN.

It is shown by a Ranch or thatched shed. At the edge to the north-west side the layers of oysters and venus appear mixed with pebbles and brown humus, the rest of the surface is covered with dense second growth, and I found it difficult to measure the size or the cubic contents of the deposits which now (after seven years) are probably all removed. This Sambaqué had as usual an Indian name, and skulls of the old inhabitants were taken from it to be destroyed. The smaller oysters are said to yield excellent lime. Further west again, on the northern bank of the Lagoa de Cacte, the half-way house in the centre of the Bertioaga channel, is the *Ostreira* of Colonel Candinho Albuquerque. He digs his shells from the southern slope of a hill near the water; the fragments are hoed out mixed with earth, kneaded together with water till they become balls the size of 68 prs., kiln-dried, and burnt when wanted. The heaps are notably double, intended for two families. Finally, I heard of huge collections on the right bank of the Rio de Uriri, a small stream from the continental side falling in near the eastern mouth of the Bertioaga; according to my informants, they have been worked for years without perceptible diminution.

Two "Indian" hatchets were sent to the unhappily defunct Anthropological Society of London, which were found two or three feet below the level of the soil in a Morro (cliff) upon the Ilha do Bernabé. This islet is conspicuous from Santos, the town rising to the north of the river-like harbour which is formed by the mangrove-bearing surface streams that drain the coast. It was known of old as the Ilha dos Padres, because occupied by the Jesuit missionaries; now it is called after the Commendador Bernabé, a wealthy merchant of Santos, who here spends two months during the year. You land from your canoe at a mass of boulders covered with cockles and other shells; from that point a paved Calçada or ramp leads to a terrace upon which, about 180 feet above sea level, stands the large white house, five-windowed and red-roofed. The garden is in a wild state, but it still bears the most delicate white roses.

Re-embarking, we crossed a widening of the water to the north called the Lagôa de Santa Rita, a regular duckpond in the cold season, when game abounds. It is the estuary of a bright little stream from a spur of the Northern Serra, rolling over white sand, and much affected by shipping. Its name is written "*Gerubatuba*," "*Jeribatyba*," and in sundry other ways, but it simply means *Jeri*, a parrot, and *ubatuba*, a place of canes. In another half-hour we passed the Round Stone (Itapoan), and disembarked at Santa Rita, an old plantation of the Benedictines, who had a chapel on the height to the left. Originally this place of worship was called *Madre de Deus*; it was built by the proprietor of the Engenho d'Água (water mill), Pero de Goes, first donatory of the Capitania dos Guaiatacazes, afterwards of São Thomé, containing fifty leagues of coast between São Vicente and Espírito Santo. The *Madre de Deus* afterwards became *N^a S^a das Neves*, perpetual mists taking the place of ice and snow, which are much wanted at Santos. Its beautiful situation attracts to it many canoe pilgrimages on Sundays,

and festivals with bands and abundant rockets, and it is "chie" to return carrying branches of the huge Brazilian murtas (myrtles).

Santa Rita has now been converted into a brick manufactory belonging to M. Francisco de Mendez Netto, and the amount of progress is shown by the bricks being stamped "Clayton & Co.'s Patent." The factor, M. Antonio José da Silva Campello, an intelligent Portuguese from Minho e Douro, showed me the establishment and gave me two fine Indian hatchets. They were found when digging clay for bricks in an argillaceous cliff two or three feet below the actual surface of the ground. My collection from Santos Bay was presented to the Anthropological Society of London (alas, departed!) and to various friends. For the refuse of the collection the sum of three guineas each was offered, and during my absence from England Mr. Cutter, naturalist, became the possessor, I believe, of eight.

On Sunday, December 3, 1865, I set out in a four-oared boat, accompanied by M. João Baptista da Silva Bueno to visit the coffee grounds, tree plantation, and lime hills of his brother, superintendent of the Customhouse, Santos. The islet rises to the north-west of the Santos sea-arm; it is composed chiefly of red boulder-clay, and from afar it shows above the shore line of mangroves towering like a saddleback, with a house and garden in the fork or seat. Rowing some fifty minutes we came to a kind of bay, known as the Caniú—"Caneó" being the older form. It is about a mile broad, and it discharges the river Cascoeiro (bank, *i. e.*, of mangrove), which, flowing south-west, completes the insulation of Santos. We passed several deeply-laden canoes which were hurrying down stream: the wind threatened to blow from the north-west, and many have been drowned in the lagoon. This is quite a local meteor. The hot, damp, light air of the Santos "mortar" rises bodily and must be supplied by colder currents either by the Viraçao (sea breeze), or by the cool draught from the mountains, which average 3000 feet above sea level. Thus, travellers making the coast from the interior plateau 2000 feet high find no west wind till they have descended 300 to 500 feet into the basin. A mangrove islet on the left shows the remains of a "Casa forte" or stone house built by the old Portuguese against the Bugres ("Indians"). In less than two hours we had covered the two leagues (eight miles) separating Santos from the Ilha do Cascoeiro. The plantation can be seen from the higher parts of the town, a house between two low hummocks, and surrounded by lusty second growth, where grass grew within the owner's memory. To the right, black dots run up the gentle slopes which face the south: these are the tea plants. The neighbouring hill is rough with tall coffee and leek-green with sugar. At the southern portion of "Bark Island" the north-west end of the Santos sea-river forks; a league to the north-east, conducts to Mogy, the station of the Santos and São Paulo railway, built at the foot of the great incline. On the left is the Cubatão stream, a league and a half long, to the bridge upon the new mule-road leading to the capital.

It must not be confounded with the Cubatão de Mogy, *alias* Rio Piassaguéra. The word is explained by Fr. Gaspar (p. 68), "Portos a que chamam cubatões." Here Martim Affonso de Souza landed to explore the interior, and the first name was Porto das Armadias (of canoes). It afterwards belonged to the Jesuits of Santos college, and took the title of Porto de Santa Cruz.

We landed on the south of the island in a cloud of mosquitos and sandflies which particularly affected the shelter of the boatshed. Here also is a lime manufacture supplied by a sambaqué hard by, the first of the three. Traces of the oysters still remained, but the greater part of the deposit had been burned for use. We carefully inspected the large tea plantation, saw the leaves gathered and toasted in the iron pan, and drank the infusion made upon the spot. It had a curious perfumed taste, and I asked if any herb had been mixed with it. The host replied no. Some, however, employ for the purpose a small white flower (Flor do Imperador?), and others adulterate it with the leaves of an indigenous tea plant called Jubão. They describe it as bearing a small blue blossom with five petals (??). Tea is considered to be a growth indigenous to the Brazils, and Labat tells us that it grows wild in the Antilles. The subject is too extensive for the slightest description in this paper, but the world has not heard or tasted the last of Brazilian tea.

After a copious breakfast we set out towards the north-western part of the Cascoeiro Island led by Senhor João with the sturdiest step for a septuagenarian. Here were the ruins of an old lime-kiln, which, many years before the birth of our guide, had drawn its supplies from the Ostreira hard by. The mound began from the mangrove-grown shore, and gradually rose to a height of nearly 200 feet; the length and breadth were some 2800 feet; so it is easy to calculate the cubic contents. The decay of ages had clothed the rugged surface with a coat of brown humus, and here and there a tall tree rose from the thick bush and scrub.

A section of the mound shows the oyster and other shells scattered in layers separated by earthy matter; there is no regularity, and the spoils of the sea are apparently tossed about without thought—in fact thrown away after use. In places the superabundant heat and moisture have formed a compact conglomerate of which blocks weighing fully half a ton were shown to us. They contained the remains of crabs and crayfish, whilst large fishbones and spines appeared scattered amongst the shells. Sundry skulls have, it is said, been taken from this mound, and our guide had a theory that the natives burned their dead in the oyster heaps, but never among the Berbigões (bivalves, chiefly the Venus). We found only one fragment of a calvaria, whose thickness rendered it worthy of a trip to No. 4, St. Martin's Place. A broken hatchet of dark stone was picked up, and a pebble, which was ground down evidently for the purpose of opening shell-fish, was detected by our guide. He showed me also what he called Pedra' Tauna (for Ita una, the latter syllable contracted from pituna, meaning the black, not, as I thought at the time, grinding stone, from the Arabic Táhún, a millstone), porous,

black, carefully rounded,* and brought, it is supposed, either from the Mogy River or from the Cáchoeira of Cubatão. Several of these stones, weighing half a pound, in number from nine to fourteen, are always found deposited at the head and feet of the skeletons. Evidently they are instruments of domestic work, probably grain crushers, deposited for the use of the ghost. It is hardly probable that the Tupis had souls or spirits.

We then crossed a shallow water to a similar mound, but not so large. Our host believed that the families had their separate camping-places where they built the huge Tabas, or sheds of poles and matting, which composed their villages. This is by no means improbable.

We then turned towards the north-east of the island, and found another shell-deposit quite equal to the largest yet seen. As usual, it was covered with scrub, and the torrential rains had cut here and there dwarf cliffs, which were not easy to climb. We picked up some human bones, and the rounded stones before mentioned, but we failed to find an entire cranium. This mound is also double, a streamlet dividing it, and on a mangrove island at the other side of the Mogy River a similar hillock was pointed out.

Concerning these Sambaqués, Senhor João remarked that at the arrival of the Portuguese they were found ready made, showing the work of many ages. Moreover, they suggested that the native tribes must have been more numerous than is generally supposed. Besides the evidence of the oyster mounds (to which I attach small importance), he pointed out that the whole country about the Bay of Santos was wholly deficient in the true old "Mata Vírgem" (virgin forest), which proves that it has once been cleared. The uneducated cannot believe that such mounds were the handy work of men, and attribute them to the (Noachian) Deluge, or to some other such apocryphal convulsion. Even educated men have advocated this absurdity in writing.

During my residence at Santos, I often attempted to find the Pegadas,† or footsteps of St. Thomé, so often alluded to by Simam de Vasconcellos, the old Jesuit historian,‡ and other reverend writers. At one time there was a regular pilgrimage to these foot-prints, which are described as dinting the rocks upon the shore of S. Vincent. All my labour, however, was in vain: some of the old men had heard of them, but the site was clean forgotten. The holy, be it observed, die twice—once in the flesh, and then in memory.

The ecclesiastical writers were of opinion that the command, "Go ye therefore and teach all nations," had literally been carried

* Some are apparently water-worked.

† I am doubtful whether the word should be pronounced Pégadas or Pegádas.

‡ Lib. II. *Cronica da Companhia de Jesus*. This book begins admirably, reproving with true philanthropy the brutality of civilization, and quoting the will of Paulus "Papa Tertius," datum Romæ, Anno 1575. Quarto nonas Junii (June 9), Pontificatus nostri anno tertio. Then it proceeds to deny that the offspring of a slave girl by a monkey, born at Cabo Verde, had a rational soul; and, lastly, it falls into the quaint superstitions about St. Thomas, quoting some fifty-five authors in support of the opinions advanced.

out in the New as well as in the Old World. St. Thomas was chosen for the Brazil, chiefly it would appear on account of his being somewhat faithless and hard of belief (John xx. 24—29), “quia infirmior erat et infidelior aliis.” Vasconcellos, after duly reproving the “Grande canalha de feiticeiros,”* thus adduces “an argument of greater profession.” Some one of the Twelve must have preached the Glad Tidings to every creature even in America (Matthew xxviii. 19, Mark xvi. 15); we know that it was not St. Peter or St. Paul, &c., &c., &c. Ergo, it could have been none but St. Thomas. Then who, asks Varnhagen, reached Australia?

Near Itapuan, on the shore of St. Salvador de Bahia, are, or rather were, certain prints, especially a left foot often submerged, attributed to the sceptical memory of him who gave origin to the still popular saying, *vêr para crêr*. There are few things more interesting in the edifice of Christianity than the little old blocks of fetishism, idolatry, and heathenism generally, which time and tradition have incorporated with the newer material.

As regards the “Magnalia Dei,” the footsteps, Vasconcellos† mentions two to the north of São Vicente, prints of a right and left foot going towards the sea, and so well marked that both appeared to have been pressed down at the same time. The same writer mentions two others at a place three leagues from Bahia, called S. Thomé or Toque-toqué. The latter word, meaning a tide-rip or sound of water, was derived from a healing fountain, which, like that set free by Moses’s staff, owed miraculous existence to the Apostle, “de sub cuius pede fons vivus emanat.” Vasconcellos candidly admits that he saw no foot-print there, but he proves that there had been, or rather that men had said there had been. Near Parahyba he speaks of a smaller foot-print accompanying a larger, and the former may have been that of São Thomaz, who, according to St. Chrysostom, accompanied São Thomé, the apostle, and he adds that certain letters, illegible to ecclesiastics, were to be seen sculptured on a stone. Possibly they were *bonâ fide*: on the other hand, they may have been mere *dendrites*, infiltrations of ferruginous particles, like the giant characters on the Gávea Mountain near Rio de Janeiro, and on the Serra de S. Thomé das Letras in Minas Geraes, which has been represented as a real Wady Mukattab.

Father Antonio de Santa Maria Jaboatam, the Franciscan, writing in 1761,‡ mentions many such steps at a place seven leagues from Pernambuco, and called the Goyahu de Baixo. The left print is distinct, as if stamped by a signet, and near it is the trail of a child some five years old, which is shrewdly conjectured to be the apostle’s

* These “doers,” *i. e.* fetishmen, were termed in the north Carybes or Caraïbes, from Caraï, wise, cunning, or from Cary and Mbae, thing; hence the Portuguese and other whites were called Carybas “hommes archives,” and hence probably our Carib. Further south they were Pagés (of this word more presently); and further south again Abarés (fathers).

† *Cronica de Companhia de Jesus do estado do Brazil. Pelo Padre de Vasconcellos. Lisbon, 1628, in folio.* Republished at Rio de Janeiro, 1864.

‡ Novo Orbe Seráfico Brasileiro on *Chronica dos Frades Menores da provincia do Brasil.* Republished in Rio de Janeiro, 1858.

anjo de guarda (Guardian Angel).^{*} Similar marks are also reported at Itioca Island in Rio Bay. Itajirú shows the rocks scored by the staff of St. Thomas in order to melt the hearts of his audience. This place is near Cabo Frio, also a classical site amongst the Red Men. Vasconcellos (i. 78) tells us how during the golden age two brothers and their families anchored off and settled at the Cold Cape. Their wives having quarrelled about a parrot which spoke like a human being, the younger brother wandered forth to the river now known as La Plata, and populated Buenos Ayres, Chile, Quito, Peru, and other trifles.† Ten leagues within the Reconcavo of Bahia is also the miraculous road of Mairapé—"caminho de homem branco," by which St. Thomas fled (Vasconcellos, ii. 28). Thus also, the Cross at Guatulco in New Spain, which that "insigne herege," (pestilent heretic) Francisco Draque (at any rate better than his German form "Drek") could not burn even when tarred and feathered, was a gift of St. Thomas.

These padda,‡ as they are called by the Hindoos, are found in every lime-stone country with which we are acquainted. Buddha has the honour of them in India, and in Ceylon he is in partnership with Adam. Throughout Sind and Afghanistan they are attributed to Ali, and to Mohammed close to Damascus, where he never was. The last which I saw were at Reppen Tabor, near Trieste: this is a foot-print of the Madonna. It is passing strange that these venerable personages never show their traces or themselves to any but their votaries, when others are in far greater need of their visits.

But, to pass from this perilous theme, Vasconcellos tells us that the wild people, showing him the foot-prints, said "Pay,§ Sumé

^{*} It is hard to say what race or what faith invented the poetical system of Guardian Angels. Possibly the highly imaginative old Greeks own the best claim to have introduced it with other innovations amongst the Jews. The seven Amesha Çpentas, the allegorical names of the Good God's supreme qualities, became our archangels; under them were hosts of Yazatas (Ministers), Fravashis (protectors of mankind), and other minor officials.

† A longer account of this legend which is variously given by authors will be reserved for a future paper.

‡ To this Sanskrit root we must refer our nursery word "pud," through *ped*, *pes*, and *πῶς*. Sardinia is popularly derived from Saad or Sarad, translated "trace of a foot;" and hence the Greek name Ikhnousa (ἰχνοῦσα) from its resemblance to Ikhnos (ἰχνος) a foot-print.

§ In the "lingoa geral" of the Tupi-Guarani race Pay is a father, a lord, and hence a monk or priest; Pay abaré guassú (great-chaste-father) became the title of Jesuits and Christian prelates. The old missionary Yves d'Evreux, who by the by proposes Saint Barthélemy as the Apostle and Guardian Saint of Brazil, distinguishes (p. 328) between Pai (Padre) and Pagy, also written Piage, Pagé, Beye, (Caribs of Western Islands), Piache (Orincco), Pawa (United States), and many other ways. These he calls mediators between man and spirits (ghosts?), and surgeons, doctors, and barbers: no small honours to the knights of the strop. Thus he translates Pagy Ouassou (Wású) grand barbier, opposed to "barberot." These people represented the Fetish men, the medicine men, and the rain-makers of the negro race; they healed the sick by their breath, caused showers, predicted futurity, and slew the enemies of those who fee'd them. "Ce sont les plus grands imposteurs de la terre," says an old author, "que sil auoient la cognoissance des lettres comme nous avons, ce serait assez pour acheuer de tromper et séduire ce misérable peuple." All races naturally call the holy men of other races imposters.

pipuera (pequera?) angâba aé, *i. e.*, Father, Sumé has placed his foot here! Now, says the Jesuit, evidently Sumé in their language is Thomé in ours. This "begging the question" explains the whole error.

The tradition of a white man, or white men (Nobrega found traditions of two "Sumi" in the Brazil), bearded to the waist and robed in white garments to the ankles, who appeared upon the coast, of course miraculously, and who taught the rude aborigines a certain progress in civilization, is a tradition general throughout the South American coast. We cannot but admit that, stripped of its marvels, the legend is based upon fact. The Berbers and the peoples dwelling upon the western shores of the Atlantic must have reached the east coast; the Malays, the Chinese, and the Japanese the west coast. I say *must*, because the elements compelled them to realize the visions of Aristotle and Strabo, of Seneca and Raymond Lull. The great whorl of the North Atlantic, passing southwards down the African coast, crosses the Equatorial waters and washes the northern portion of S. America, whence it returns to Europe as the Gulf Stream; it was this oceanic river which, carrying Pedr' Alvez Cabral out of his reckoning, landed him on the island of Vera Cruz (the Brazil) on April 22, 1500.

The primary pelagic elements of the North Pacific similarly form an immense irregular oval, whose longer axis lies east-west, flowing by Japan to California and Central America, whilst there is a corresponding circulation in the South Pacific. Thus, long before the official discovery of America by Columbus and his followers, the New World had been visited not only by those whose names are embalmed in history, but by many a shipwrecked sailor and traveller. But, as the ancients voyaged in small and feeble parties without women who could perpetuate their race even for a few generations, cast-away Europeans, Asiatics, and Africans were at once absorbed into the greater numbers of the indigens. To this, rather than to the imaginations of poets, or to the mere superstitions of peoples, I would refer the well-known legends of Atlantis, Antillia, and the Septem Citade, St. Borondon (Brandan), Madoc's Country, White-mansland, Estotiland, Drogeo, Hy Brazile, and Icaria. I do not mention Helluland, Markland, Vinland, and Ireland the Great, which were real explorations. The New World, like the Canary Islands,* has been often discovered, and as often forgotten.

This mysterious visitor, who became St. Thomas, is generally known as Zomé, or Pay Zomé (Father Zomé), and his history would fill a volume. According to the curious fragment *De la légère croyance des sauvages Austraux*, dating from the sixteenth century,† Monan or Maire Monan was the Prometheus of the race who

* Well known to the Greeks, Romans, and Berbers, the Fortunate Islands were not officially re-discovered till the early fourteenth century. Varnhagen (ii. 451) finds an analogy between the Berbers, Guanches, and the so-called "Indians," but "man everywhere does the same thing under the same circumstances."

† By André Thevet (*Cosmographie universelle*). See also the *Fragment d'une Théogonie Brésilienne* recueilli au XVI^e Siècle; *Une fête Brésilienne*, &c. &c. Par Ferdinand Denis. Paris, Techener, 1851.

created fire, and placed it between the shoulders of the *aigh* (sloth). One of his many descendants was a great Caraïbe and Pagé called Sommay, a white-bearded and continent man, who loved the Angatouren (Xe Angaturam, I am virtuous), and who taught his numerous followers the grandeur of heaven, the courses of the sun and moon, the existence of Cherryppycouares (immortal ghosts), the use of foods, medicines, and poisons, nostrums for swiftness in the chase and fierceness in fight, abstinence from certain meats, the virtue of removing all the hair except that on the head, and the cure of piau, or running sores. He had two sons—1st, Temenduaré, or Tamendouaré (from Timandouar, “he recollects”), in more modern parlance “Tamandaré;” and 2nd, Ari Coute (Agitated Ari or Day). The two having quarrelled, the latter caused a deluge, which will be described in a future paper.

Southey considers “Zomé” identical with Zemi, a divinity or divine person known to the Caraïbes (Tupis) of Hayti; and Enciso the geographer informs us (1519) that the savages of Cuba (also Caribs or Tupis) adored the “idol Sumi.” Mr. W. Bollaert (p. 22 *Antiquarian Researches*) found amongst the Chibchas (Muyscas) of the Bogotá (Bacuta) table-land a demigod called Xue (Shue) or Zuha,* who came from the East and spent his life in teaching and civilizing mankind: he finally disappeared at Sogamoso. His beard was long, his hair was tied up in a fillet, and his dress was the ancient garb of the country, a collarless tunic, and a mantle fastened by the ends at the neck. Charlevoix (lib. vi.) mentions in Paraguay and Peru a Pay Zuma, or priestly Zomé, which he has doubtless perverted to Pay Túmá, with an eye to St. Thomas; possibly, however, Túmá may have been a corruption of Tamoyo, or Tamoi, grandfather, regenerator of peoples. He is also called Pay Abara, or father who lives in chastity, and the usual tales are recounted (lib. vii.) about the road, the rocks, and le cimetière de Pay Zuma. The first Spanish settlers were told by the Indians of the Cuyo province, Chile, that a white man with a long beard formerly preached to their ancestors a new and philosophical religion. He stood upon a rock, still called the stone of St. Thomé, and as a proof of authenticity they showed the impression of human feet, and the figures of animals who came to hear the sermon. M. Denis believes that P. Yves d'Évreux† alludes to Zomé where the “Indians” say to him “nos pères nous

* Associated with him were Nemquetaba (=Nemterequetaba, *alias* Chinzapogna, the envoy of God) and Bochica, who formed the celebrated cataract in the mountainous region of Tequendama, New Granada. Mr. W. Bollaert, quoting Bradford, adds, “The Mexican deity sometimes called the God of Air, the Pyzome (Pay Zomé) of Brazil, Viracocha of Peru, and Bochica of New Granada, are represented as white men with venerable flowing beards. The latter lived and legislated two thousand years amongst the Moscas or Muyscas (‘men’ or ‘people’) of New Granada, and suddenly disappeared.” I must doubt the dictum of my learned friend Mr. Bollaert that the so-called “Red Man” was the creator of his own state of civilization. The similarity between the governments of Japan and the Chibchas has often been remarked.

† Voyage dans le Nord du Brésil fait durant les années 1613 et 1614 par le Père Yves d'Évreux, &c. &c., par M. Ferdinand Denis. Leipsic and Paris. A. Franck, 1864. See pp. 448-9.

ont laissé, de main en main par tradition, qu'il estoit venu iadis un grand Marata du Toupan (Apostle of God)," and conjectures Marata to be derived from Mair, or Mair, a stranger.* Varnhagen tells us† that Sumé arrived at the island of Maranhão, and disappeared as the savages were about to sacrifice him. The Tupinambis preserved a tradition that their forefathers, quarrelling about the stranger, shot at him arrows which returned and slew the archers, whereupon the forest opened for Zomé, who, declaring that he would return at a future time, disappeared. At S. Vicente the tradition was that he walked into the sea, and, to make the legend complete, the "big canoes" of the Portuguese explorers should have been mistaken for the return conveyances of the truant god.

The benefactor of the Tupi race, who, according to some, preceded Zomé, was Tamandaré, popularly called the "Indian Noah," and connected with some local deluge (*Vasconcellos, Noticias do Brazil*, p. 47). He saved himself and his family by climbing up a Pindoba palm tree, which touched the sky. All lands have preserved traditions of a deluge, because floods have occurred in all lands, and the last deluge becomes universal because among savages and barbarians the few miles near home represent the whole world. Everywhere, therefore, in South America we find traditions of a white man who, like the Triptolemus of the Old World, immortalised himself by teaching agriculture, the most useful of arts, and especially the manipulation of Manioc, a food which none but a god could invent or barbarian would use. Thus, M. Botelho de Oliveira sings—

A mandioca que Thomé sagrado
Deu ao gentio amado.

The mystery of fermenting liquors unknown to purely savage and isolated races is more likely to have come from abroad than to have originated at home. Finally, the roughly-incised cuttings and figures sometimes called hieroglyphics, which are found, to quote no other places, upon the mountain of Anastasia and near the river Yapura of the Pará province, hardly belong to a race so unalphabetic. Travellers mostly hold Quetzalcoatl of Anahuac, Bochica of New Granada, and Manco Ccapac of Peru, Zomé of the Brazil and elsewhere, to be mythical beings. I, on the other hand, would rather believe in a succession of involuntary visits from the Old World, east and west, beginning in the early days of navigation, and that some of the strangers more favoured by fate than the rest left their names in the land. We may safely repeat with the author of *Caramuru* :—

Mas na memoria o tempo não acaba
Que a prégará Sumé, santo Imboaba.—iii. 80.‡

* Ruiz de Montoya deduces it from "Mára,?" "What is there?" and says it was applied even to Christians.

† Lenda mytho-religiosa Americana, &c. Agora traducida por uno Paulista de Sorocaba. Madrid, 1853. I have not seen this brochure of 39 pages in 8vo.

‡ Meaning a European. Primarily a feather-legged fowl. See my *Highlands of the Brazil*, i. 110.

Humboldt, *Ansichten*, and other places,* opines that in Peru there was an older civilization than that of Manco Ccapac whilst Rivero and Von Tschudi (Peruvian Antiquities) show that distinct races like the Aztecs, Toltecs, and Olmecs of Mexico dwelt there before the foundation of the Ynca kingdom. These two authors prove that there were legendary invasions of foreign hordes from the Andes and the Brazil, and that forts were built for the protection of the frontier; hence, probably, the Zumi, who accompanied or who was a disciple of the traditional hero-god, the "illustrious Ynca" (*i.e.* Lord) Manco Ccapac, who afterwards became the supreme deity of the Empire of the Sun. This Western Romulus, with his wife Mama Oello Huaco, is supposed to have arrived in Peru about A.D. 1000, when Christianity was introduced into Iceland, and to have founded or restored the Quichua Empire, with Cuzco, its capital, and to have descended into earth (A.D. 1021) near Lake Titicaca. Others place the event somewhat later, or 400 years before the arrival of Francisco Pizarro (A.D. 1532). Cortez found the Mexican Aztecs ready to receive white men from the East, holding them to be natives of the sun region, and Montezuma related to him the legend of Sumé. The bearded and black-robed Quetzalcoatl of the Aztecs (Toltecs?), corresponding with the Zamna of Central America, is translated literally "twin" (*Didymus*) and secondarily "god of the air:" his worshippers knew the cross long before the arrival of Spaniards, and in their City of Cholula there was a temple dedicated to the Holy Cross, which suggests the sacred Tau of Egypt.

The Iberian explorers of the New World naturally expected to find in it traces of an apostle, and, expecting to find them, they found them. So Cieza de Leon (chapt. 98) declares of a figure in the temple of Huiracocha (Peru), "Some said this might be the statue of some apostle who arrived in this land." The same giant-deity of Peru who rose from a lake and was worshipped there two centuries before the foreign invasion is also supposed to be St. Bartholomew. Quetzalcoatl is variously interpreted as Noah and St. Thomas. Monan is Prometheus; Tamandaré is of course Noah pure and simple. These legends are very properly preserved by the Brazilian poets, such as Fr. Rita Durão, but we do not like them so well in prose.

The same principle which banished St. Matthew to Æthiopia and St. Thomas to America, also sent the latter to Hindostan, and made him, as we are assured by the apocryphal "Gestes of St. Thomas," the apostle of the "Gentoos." The Chaldean breviary of the Malabar Church assures us that by St. Thomas were "the errors of idolatry banished from among the Indians" (p. 89, *Preliminary Essays to Cathay and the way Thither*, by Col. Henry Yule, C.B., London, Hakluyt Society, 1866), and the Nestorians or Christians

* See the remarks of M. Jacquemart, p. 214 *Histoire de la Céramique*, Hachette, 1873, upon an antique Peruvian vase. "No one," says a critic, "can study this powerful head, combining the elements of a partially extinct type of feature with a striking refinement and depth of expression, without wondering afresh what could have been those ancient races and that ancient civilization of America which perished in conflict with our more vigorous modern nations."

of St. Thomas, called by old ecclesiastical historians "Thomites" or "Thomœans," still exist in Malabar. Their founder first preached at Craganore (Malabar), where the Jews of the tribe of Manasseh are supposed to have settled, and to have grown black men under the influence of climate.* Like St.^s Bartholomew, he converted the pagans by many miracles. After his martyrdom he appeared, as the fashion was in such matters, to Xiphoro and Susan, and his shrine was at Mailapûr, the modern Madras. Barbosa and others relate a tradition that his right arm protruded from the tomb, and long resisted all attempts to cover it. The Portuguese viceroys of India strove hard, but in vain, to find his body, till it was discovered by Duarte de Menezes, with singular consolation to the king and universal joy to Christendom.

There are, alas! men rationalistic enough to explain St. Thomas in India by Mar Toma, a Syrian bishop, buried in Coromandel, and they thus treat the apostle as he treated his Master. These reprehensible persons evidently think with Voltaire, "Je suis de l'avis de St. Thomas Didyme, qui voulait mettre doigt dessus et dedans."

DISCUSSION.

The thanks of the meeting were unanimously voted to Capt. Burton for his paper.

Mr. CHURCHILL cited from Ziegenbelg, *Genealogie der Malabarischen Götter*, Madras, 1867, p. 188, the case of Captain Pole, who fell in battle in 1809, and was buried in a sandy desert. A few years after he became an object of worship, and brandy and cigars were offered to his manes.

Mr. KAINES, alluding to that portion of Captain Burton's paper in which the traces of white men in Brazil were miraculously accounted for by the natives, said that it was natural for the rude and uncultivated mind so to explain whatever appeared unusual, and that to account for such things in a normal natural mood indicated a very advanced stage of civilization and culture. Every true thinker was aware of this—his intellectual infirmity, namely, of explaining natural phenomena in other than natural ways—and disciplined himself constantly by logical and scientific methods and processes, that he might counteract or exterminate it.

Mr. LEWIS said that a bas-relief of two figures performing some rite before a Roman cross was discovered by Stephens and Catherwood at Palenque (*Incidents of Travel in Central America*); the Roman cross also formed the ground-plan of the sepulchral dolmen known as Wayland Smith's Cave, in Berkshire. With respect to Europeans having visited South America before Columbus, it was

* Bishop Heber was the first to publish this "ethnological" peculiarity, and many others have followed him. The expatriated Jew cannot form a synagogue without a congregation of ten male adult free souls, so he buys the requisite number of serviles, circumcises them, manumits them, and derives the required spiritual benefits. The "black Jews of Malabar" are descended from Hindu outcasts and slaves, while the same origin may be assigned to all the "black Portuguese" Christians who rejoice in such names as Albuquerque and Menezes.

asserted that a Welsh Prince named Madoc discovered America in 1160, returned in 1164, and again departed with three thousand colonists in eighteen ships. This statement was generally ignored, but he saw no reason why it should be, as it rested on as good authority as any other portions of Welsh history, and was in no way improbable in itself. It was true that no trace of the colony had been discovered, but, as they had often questioned the possibility of the European races sustaining themselves in America without continual supplies of fresh blood, this would not surprise them; moreover, the colonists might have been lost at sea. Southey had written a poem on the subject.

The Honorary Foreign Secretary read the following paper

ON HUMAN REMAINS DISCOVERED BY SIGNOR CESELLI AT CAPRINE, NEAR ROME.

[COMMUNICATED BY THE REV. PIUS MELIA, D.D., F.L.A.S.]

AT a distance of twenty-seven kilomètres north-north-east of Rome, and east of Nomentum (Mentana), are, as is well known, a group of hills which are known under the names of Corniculi or Corniculani. These were supposed by Sir W. Gell to mark the site of the ancient Latian city Corniculum, which is frequently mentioned in Dionysius and Pliny. This identification has been disputed by others, but, as this point is irrelevant to the subject of the present paper, it need not be here discussed. The neighbouring locality of Monticelli, two kilomètres distant, was selected by Nibby as the representative of the ancient Corniculum, and this view appears to be adopted by Signor Ceselli.

The territory of Monticelli is divided into four divisions, one of which is termed Caprine, where there are many quarries for extraction of the travertine, which is preserved in the locality in large beds, the stratification of which is generally horizontal. Fissures intersect these beds, through which flow streams of water charged with bicarbonate of lime, which deposits in the well-known manner characteristic of travertine in all parts of the world.

In one of these *sentine* there was met with in the earlier days of the present year (1873) a block in which the incrustation had almost formed a homogeneous mass with walls of the real travertine. There were found in this mass four crania and some human bones, a few fragments of hand-made pottery marked (*cotti*) on the outside, some arrow-heads, a *hâche*, and a scraper, all of flint, the lower jaw of an ox, and some deer bones and charcoal. Examination of the remains did not solve the question whether they were interred, as Signor Ceselli seems to have anticipated, facing the east. The skulls were so closely attached to the travertine that it was not possible to measure them or to indicate to what race they belonged. There is, however, a possibility that they may be soon removed from the matrix, when Signor Ceselli promises to inform us. He further hopes that this examination will demonstrate whether these skulls belong to the

neolithic period to which he assigns the flint instruments and the pottery. It is evident that Signor Ceselli imagines that the neolithic period was a veritable epoch in the history of man. The opinions of the majority of the English Anthropologists that such words and ideas as Palæolithic, Neolithic, &c., should not find part in the modern vocabulary, will no doubt induce him to use a more exact nomenclature. The paper, however, is interesting, as showing the conditions under which human remains are often found of uncertain date. The rate of deposition of travertine is impossible to be ascertained. Certainly no particular skull-forms could be co-related in Italy or elsewhere with the period of chipped or polished stone.

DISCUSSION.

Mr. LEWIS thought the remains mentioned were, from the description given, quite as likely to have been carried into the position in which they were found by the action of water as to have been interred there.

Dr. CARTER BLAKE was glad to announce that Signor Ceselli meant to submit the human remains, through the Rev. Dr. Melia, to the London Anthropological Society for description. He failed to see that they necessarily belonged to an older period than the Celtic remains, which had been described by Professor Gastaldi, from the *terramares* of Reggio. The word "neolithic," which had been used in the paper, need not necessarily indicate any precedence of the Celtic period, or subsequency to the age of chipped stone. He coincided with Mr. Thomas Wright in his assignation of the period of bronze and stone weapons, and not with his friend Mr. S. J. Mackie, whose division of implements into Palæolithic and Neolithic appeared not to be founded on a comparison of the contemporaneity of remains in various quarters of the globe.

The PRESIDENT said according to some authors Corniculum lay between Tibur (now Tivoli) and Ficulnea (where Cicero had a country seat), near the modern *Casale*. Corniculum derived its importance in an historical point of view from having been taken, plundered, and burnt by Tarquinius, and from being the birth-place of his grandson Servius Tullius, sixth king of Rome. It is mentioned by Dionysius Halicarnensis, Livy, and Pliny.

The Honorary Secretary then read the following papers:—

NOTES ON ARBERLOWS RING AND OTHER REMAINS IN DERBYSHIRE.

By A. L. LEWIS, M.A.I., Hon. Sec. L.A.S.

In bringing before this Society the fourth of my series of papers*

* 1. Monuments in Berkshire, International Congress, 1868. 2. Archaic Structures in Cornwall and Devon, Anthropological Society of London, December, 1870. 3. Archaic Structures in the Isle of Man, Anthropological Institute, May, 1871. See also Builders and Purposes of Megalithic Monuments, Journal of Anthropology, 1870, as an introduction to this series.

descriptive of the megalithic and other prehistoric monuments of Britain, I have to draw the attention of the members to the Peak district of Derbyshire, celebrated alike for the wild and unique beauty of its scenery, and for the various antiquities with which that scenery is diversified.

The largest of the megalithic monuments remaining there is ARBERLOWS RING, situated about six miles from Bakewell, but at a considerable elevation above that town, and which, though by no means the largest of the British circles, is inferior to none in points of general interest. It consists of an oval ring of stones, the diameters of which were apparently about 126 and 115 feet, the precise figures being difficult to ascertain in consequence of the stones, which doubtless originally stood upright, being now all flat, and having fallen, some outside, some inside, and some across their original position, while others are broken into fragments or buried in the soil. The stones now remaining (May, 1871) in fragments and entire represent about thirty out of perhaps forty which may have formed the structure, and which were of considerable size, the largest now entire being about twelve feet long, six feet broad, and four feet thick. The longest diameter of the oval would appear to have run about twenty-five degrees W. of N. by compass, while to the N.W. and S.E. two of the stones seem to have stood back outside the regular line, corresponding possibly with stones which stood outside the circle at Stonehenge, in the same directions, at the edge of the trench by which that structure is surrounded. Within this oval, on the line of the longest diameter, but not in the centre of it, the distances from the N.W. and S.E. ends being in about the proportion of three to two, are the remains of some large stones (one being still fourteen feet long), which were, I believe, originally three in number, and stood thus ---| or thus ---| , the central stone facing about N.E. and S.W. A similar erection of three upright stones is found, not inside but in connection with the great circles at Stanton Drew, in Somersetshire; and another is thought to have stood inside the still larger circle at Avebury (Wiltshire), to which Arberlows Ring has in other respects some resemblance. Three upright stones arranged thus ---| , and covered by a flat one, form Kit's Coty House, in Kent, which I believe to have been, unlike the majority of dolmens, erected not as a sepulchre but as a monument, or more probably as a place of sacrifice.* That the number three was looked upon by the Druids with special regard is evident from their triads, and this lends additional weight to the ideas that these monuments were erected under their influence, and that three stones may have been

* I am aware that Mr. Lukis has argued (and as regards the French examples entirely in accordance with my own opinion) against the existence of free-standing dolmens, but "Kit's Coty House," and the "Spinster Stone" are, I still think, exceptions, as they are not suited for sepulchral chambers, are not covered, and have no burials beneath them. Of course it may be said that the mound and gallery belonging to them have been destroyed, but of this there is no proof, nor any great likelihood. It will be remembered that I consider the sacrifices (if any) to have been offered, not on the top of these dolmens, but in front of them.

set up to mark a place of sacrifice. It may also have happened that the three stones represented the male emblem, and the ring by which they were surrounded the female emblem, or perhaps this coincidence may have been undesigned; while, if my view as to the compass bearings and arrangement of these stones at Arberlows be correct, the facing of the central stone to the N.E., the locality in which the sun rises in the summer time, connects this circle with Stonehenge, the Roll Rich, Dance Maen, and the small circles in India mentioned by Col. Forbes Leslie, all of which have a stone placed outside the circle in the same direction; and here again, as the sun represented the male emblem, we may perhaps see a phallic allusion in the arrangement of the circle with reference to its rays, an allusion which may, however, have been borrowed without any intention or comprehension of its meaning, in the same manner as many of our own ecclesiastical emblems, which are unquestionably phallic in their origin, have no doubt been borrowed. About fifteen feet from the line of the oval is a ditch, about seven feet deep and fifteen feet wide at the bottom, wherein lie one or two small stones, probably fragments cast down from above, and immediately outside the ditch is an embankment, which may have been eight or ten feet high, and perhaps as wide at the top, but which is now exceedingly irregular, possibly through having been dug over in search of treasure. Near one of the entrances the embankment has been dug into, and a tumulus formed out of it, in which two Céltic vases and a bronze pin were found: this burial could hardly have formed part of the original plan of the circle, and would therefore seem to have been made after the latter had fallen into disuse. There are two entrances, one being a little E. of S., and the other a little W. of N., about in the line of the longest diameter of the oval, yet not precisely opposite each other. Just outside the southern entrance are two stones, one at least of which was probably upright, while the other may have formed a small altar in front of it. It may be noted that a flat stone is found at one of the entrances to Stonehenge: in this case, however, it is to the N.E., and may not always have been flat. On walking round the top of the embankment I noticed a small low bank leading from it, in a direction about thirty degrees S. of W., towards a mound which stands perhaps 300 yards off, and which is about twenty feet high and some seven yards wide at the top. It is just possible that in this low bank and circular mound we have the remains of such a serpent mound as Mr. Phéné has discovered in Scotland, but, as the intervening space is occupied by ploughed fields separated by loose stone walls, this possibility can never, I fear, be converted even into a probability. As, however, Arberlows Ring, with its ditch and embankment, resembles Avebury on a small scale, I think it more likely that this mound, which stands in something like the same relative position to the former as Silbury Hill does to the latter, may, though so much smaller than that renowned earthwork, have had a similar object; but, on the other hand, a sepulchral deposit has, I believe, been found in the centre of it, just under the surface. About thirty degrees S. of E. from the ring, and

at some little distance, are the remains of a stone or stones which may have had some connection with it; but ploughed fields and stone walls have long severed any connecting link which may have existed.

It is worthy of note that the parish in which Arberlows Ring is situated is called Youghreave; the significance of the prefix You need hardly be dwelt upon here,* but it certainly seems to tend to connect this monument with sun-worship, as does also the position of the three central stones before mentioned. The "well-dressings," which are used in different parts of the country, and have been so practised from time immemorial, also connect themselves with similar customs used at some time or other in almost all the countries where such monuments as Arberlows Ring are found; and these circumstances offer another link in the chain of evidence connecting the circles and ovals of this country with the religious observances of our British forefathers, for, if these customs were so deeply engraven on the Celtic mind as to have survived amongst us to a certain extent to the present day, it is impossible to believe, as some would persuade us, that the monuments with which they are everywhere associated are so entirely pre-Celtic that the Celts of Cæsar's day had forgotten alike their names and uses.

In the moors at the top of the hills above Eyam is a small circle of a different character from Arberlows Ring; it is called the WET WITHINS, and consists of a bank of earth about six feet wide and two high, inside which, but close to the bank, was formerly a ring of small stones about two feet high, and of proportionate size, of which ten only now remain out of perhaps eighteen or twenty, or it may be many more, the stones being so small and irregular as to leave no conclusive indication of their former position. My measurements of this structure are somewhat imperfect, but, so far as they go, indicate it to be an oval, the diameters being about 110 and 100 feet, and the longest diameter running about N. and S. On the east side, about seventeen yards from the circle, are two small groups of stones which somewhat resemble the foundations of circular huts. This oval bank of earth and stones somewhat resembles a circle in the Isle of Man, described by me at a meeting of the Anthropological Institute (May, 1871), but differs from it in having no avenue leading to it.

There are some other remains of the same description in Derbyshire, but the only one which I was able to visit, besides those already mentioned, cannot positively be said to fall under the

* Sanscrit.	Cingalese.	Welch.	Armorican.	Cornish.	Gaelic.
Heli	Haili	Haul	Haul	Houl	Soillse
and	and	pronounced	and	and	pronounced
Helis.	Hel.	Hail.	Heol.	Heul.	Hoillse.
					=sunlight.
= sun.					

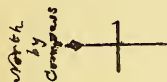
—Col. Forbes Leslie, *Early Races of Scotland*, which book gives much interesting information on the customs, &c., mentioned above.

category of "pre-historic" monuments. It is situated at Birchover, between Arberlows Ring and Darley Dale Station, where a detached pile of rocks known as the ROW TOR or BIRCHOVER ROCKS rises in a manner unusual in the Peak district. Nearly at the top of these a passage, said to be ninety feet long, runs completely through them; this passage was no doubt in great part natural, but has been improved by art, some seats and two small chambers having been formed in its sides, and the rock which overhangs one entrance having been cut into a kind of portico. This work is, I believe, traditionally attributed to the Druids, which is my principal reason for drawing attention to it here. It might, for any reason I could see to the contrary, have been executed under Druidic influence as well as under any other; and, though not disposed to underrate that influence, I feel constrained to add, as well under any other influence as under that of the Druids.

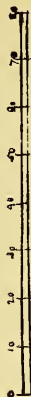
Since the foregoing pages were written—in fact within the last three weeks—the world has been told by the President of a learned society which, like our own, takes cognizance of these matters, that we know nothing of the religious opinions or practices of the Druids; that there is no reason to connect them with the stone circles and dolmens; and that the idea that the circles were temples is entirely without foundation. The fact of these statements having been made on such apparently high authority has led me to do what I should not otherwise have thought it necessary to do at this advanced period of the nineteenth century, namely, to repeat to this meeting what may be called the A B C of our knowledge on these points.

1st. As to the religious opinions and practices of the Druids. Cæsar, whose statements are generally considered to have even "some scientific importance," has recorded that they were both priests and judges, having a most severe power of excommunication and outlawry; that there was one Arch-Druid (from which dignity I may mention in passing that of Archbishop has been thought to be derived); that they enjoyed exemption from military service and other privileges; and, what is of particular interest to us, that the system of Druidism is supposed to have been formed in Britain, and from thence carried over into Gaul, and that those who wished to be more accurately versed in it came to Britain for that purpose; that the course of instruction lasted for several years, and that the Druids were acquainted with the Greek letters. Strange, this, among mere painted savages! With respect to their practices Cæsar states that they considered that the favour of the immortal gods could not be conciliated unless the life of one man were offered up for that of another, and that for this reason they offered human sacrifices, as also for the good of the state generally. With respect to their opinions he says—"It is especially the object of the Druids to inculcate this, that souls do not perish, but after death pass into other bodies" . . . "they discuss, moreover, many points concerning the heavenly bodies and their motion, the extent of the universe and the world, the nature of things, the influence and ability of the immortal gods; and they instruct the youth in these things." He also asserts that they worshipped Mars, Mer-

ARBERLOWS RING,
DERBYSHIRE.



Scale 4.0 ft to 1 inch



N.B. The dotted line
indicates approximately the original
line of the oval.





A Remains of low bank leading in the direction of a tumulus called "Gib Hill" in the top of which a cist of feet square was found, with vase, two flint weapons, and iron fibula. This Tumulus is about 800 yards from the oval 20 feet high and 7 yards across the top.

B. Tumulus formed in embankment, in which a cist was found, with two vases and a bronze pin.

The remains of one or more stones exist in a field in this direction.

Drawn by A. L. Tawis from measurements taken by him on the spot 19 May 1871.

cury, and other classic deities ; but it was a common error of the Roman authors to attribute to those gods of other nations who in any way resembled their own the classic names. Lucan also bears testimony to the firm belief of the Druids in the natural immortality of man : "Death," says he (apostrophising them), "if your lore be true, is but the passage to enduring life ;" and he is confirmed in his turn by Valerius Maximus. Strabo informs us that the hierarchy was divided into Bards, Vates, and Druids, of whom the latter held the highest rank, and, with Diodorus Siculus, gives other details, while both confirm the immense power which this priesthood commanded, and the esteem in which it was held. If, however, we turn from classic writers to British tradition (and I see no reason why in a matter of this kind, at least, British tradition should be entirely ignored), the foregoing details are largely augmented. Mr. Morgan, who derives his information from that source, says, "When Druidism merged into Christianity, its rites, festivals, and canonicals became those of the Christian Church. Little variation exists between the modern ceremonials of religion as witnessed in a Roman Catholic cathedral and those of Druidic Britain two thousand years since. Their derivation from Druidism is not more evident than the striking contrast they present to the simple and unadorned ritual of primitive Christianity."

2nd. As to the use of the stone circles. There is no reason why they should not have been temples, that is places of sacrifice : there are many things which lead us to believe that they were. Moses built an altar and twelve pillars according to the twelve tribes of Israel. Circles of small stones are used at this day in India for places of sacrifice. Similar circles are found in various countries between this country and India, and throughout the whole line the same superstitions and practices are found, frequently connected with the stone monuments and—in Europe—with the Celtic, Gaelic, and "Iberian" races. The circles or ovals of our own country are conveniently arranged for sacrificial purposes, and have, as I have already stated, a uniform reference to the point where the sun rises at a certain time, found also in some of the Indian circles, which cannot be accidental, and which is altogether meaningless except in a temple or place of sacrifice for solar worship. That they may have been used also for other purposes, such as memorials, burial places, and places of public assembly is probable ; but so have our own churches, the primary object of which is none the less that of public worship.

3rd. As to the connection between the Druids and the stone circles. Of course, when we speak of the circles as built by the Druids, we use the term in the same manner as when we speak of part of Westminster Abbey being built by Henry VII. We do not suppose that either the king or the arch-Druid worked at the building with his own hands, but only that it was constructed under his influence and direction. And first it may be asked, if the Celts did not erect the British circles, who did ? Avebury, Arberlows, Stonehenge, and others are works requiring both skill and concentration of labour, such as the Celtic Druids could undoubtedly command, but such as

we have no right to expect from any mythical "pre-historic" savages, whether of Australian, Eskimo, or Palæo-Georgian affinities. The barrows which are clustered round them, as tombs round a cathedral, give us pottery and weapons of Celtic manufacture. The great sepulchral dolmens, which are of the same style, and there is every reason to believe of the same period, give us also Celtic remains, and this fact of itself ought to be sufficient to connect the circles with the Celts, or in other words with the Druids.

Finally, we have it on the authority of Cæsar that the Druids went deeply into astronomical matters, while tradition has attributed to them the worship of the sun. Whether they actually worshipped the sun, or regarded it as anything more than an emblem of the Creator, may be fairly questioned, but there can be no doubt that their festivals were regulated by the position of the sun and other heavenly bodies; and when, therefore, we find a number of presumably Celtic structures arranged with a special reference to the sun, and otherwise suitable for sacrifices on solemn occasions, it can scarcely be doubted that they are the places where the Celtic priests, that is the Druids, held their festivals, and offered, it may be human sacrifices (mostly of criminals), to atone for the nation and to satisfy offended justice.

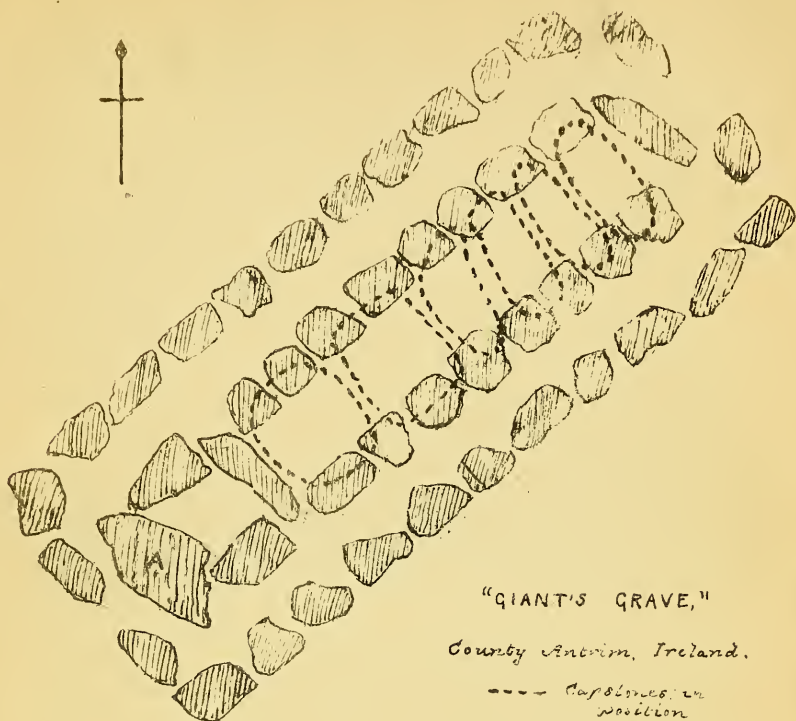
"GIANTS' GRAVES" IN IRELAND.

BY J. SINCLAIR HOLDEN, M.D., F.G.S., F.L.A.S.

THE name of "Giant's Grave" is applied rather promiscuously to various stone structures, including cromlechs and dolmens of many shapes and sizes, scattered liberally throughout Ireland. Properly the name should be restricted only to those oblong covered inclosures, a type of which I purpose to describe, and which is represented in the accompanying diagram. (Plate 2.)

Earliest historical references, going back to the days of St. Patrick, mention the "Giants' Graves" as being then clothed in mystery. The Irish still call them "Leaba Dearnadd Agus Grainne," or the bed of Dermot and Grace, from the Ossian tale that Dermot O'Danne eloped with Grace, the daughter of King Cormac, and the betrothed spouse of the great Finn Mac-coul. Finn pursued them, and the lovers for a year and a day eluded pursuit, sleeping each night at a different place under a "leaba," or bed erected by the fugitives after their day's journey. According to this legend there are just 366 of them in Ireland: from the numerous remains of them still extant I should think there has been a much larger number.

The one I select as a most perfect type of the "Giant's Grave" structure occurs in the townland of Goakstown, in co. Antrim, and is situated about 700 feet above the sea, on a mountain slope which forms a side of one of the most picturesque glens of Antrim. On

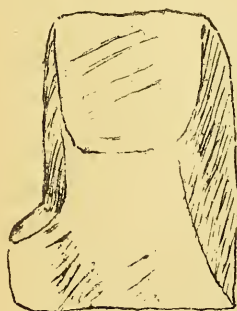


"GIANT'S GRAVE,"

County Antrim, Ireland.

---- Capstones in position

A Capstone fallen.



circ.
circ.



No. 3. (Half-size of original)
course grit impregnated with iron.



No. 1 (Quarter-size)
A hand knife of garnet for
opening large shells and breaking
small ones

IMPLEMENTS FROM
CASQUEIRO ISLAND.

examination it is found to consist of three distinct parts, which had likely distinct meanings and uses.

1st. An outer enclosure of an oblong form composed of twenty-six rough pillar blocks of basalt (the prevailing stone of the district), the space measuring in length thirty-five feet, by sixteen feet broad, the long diameter lying N.E. and S.W.

2nd part. At the S.W. end, inside the enclosure, is a true cromlech or altar form of dolmen, consisting of three upright stones and a large slab, which, though now on the ground, has evidently once lain horizontally.

3rd part. Extending from the cromlech to the N.E. end of the enclosure is a covered alley or vault, twenty-one feet long and four feet broad, and about the same in height; it is formed of sixteen pillar stones, eight on each side, and covered over by six slabs of irregular sizes; the ends are closed at the S.W. by the cromlech, and at the N.E. by a large stone, which latter had been disturbed.

To determine the object of this rather elaborate erection, I carefully examined the space between the outer enclosure and the covered alley, but found nothing; the same result followed my search inside the cromlech, but inside the covered alley were numerous deposits of charred human bones, fragments of several sepulchral urns and worked flint implements; these contents were strewn along the passage, and had evidently been much disturbed since their deposition.

From the examination of this “Giant’s Grave,” and also of some others, there can be little doubt but that these lithic structures were used for places of interment, not of an individual, but of a family or sept, as all contained the remains of several cremations. This, however, was not the only use, nor perhaps the chief intention of their builders, for the cromlech and stone enclosure seem to indicate a place of sacrifice and worship. The coincidence that all giants’ graves have a N.E. bearing, facing the rising sun, and that all circles which have outlying solitary stones, have them likewise on the N.E., as Stonehenge for instance, savours strongly of that most ancient and general of all religions, sun-worship.

The threefold character of this type of “Giants’ Grave” may be regarded as a combination of three well-known forms of stone monuments, viz., the circle, the dolmen of sacrifice, or cromlech, and the dolmen of interment; these are frequently found separate and distinct. It is not at all unlikely that the outer oblong enclosure, which represents the circle, took this form as additional interments were made, as in some places it is oval, but always adapted to the length of the sepulchral vault, be it larger or smaller.

As far as I can ascertain, wherever this circle of stones is absent so also is the cromlech; their presence and absence go together, and thus is frequently found the long dolmen of interment isolated from the emblems of worship, but in all other respects similarly constructed; these are also popularly called “Giants’ Graves.”

There is one constant feature in all “Giants’ Graves,” whether they are enclosed or not, and that is the step-like arrangement of the

roof, the largest stones being invariably at the western end, from which they graduate in size to its eastern termination.

The contents of all "Giants' Graves" (and many have been examined) seem to be very similar: charred bones, rudely-baked urns, and flint implements are found, but no trace of metal. Along the east coast of Ireland most of these structures, like the one I have described, have been invaded and disturbed, and history attributes it correctly to the Danish rovers who infested the coast about the eighth and ninth centuries. No doubt these depredators were often rewarded by finding articles of gold and silver in later sepulchral erections, which would stimulate their ransacking propensities to violate every kind of primitive burying-place that came in their way; the "Giants' Graves," however, did not yield much to their appetite for plunder, though not escaping their search.

I am not aware that precisely similar stone structures to the "Giants' Grave" described have been found elsewhere than in Ireland; many unite the triple object of worship, sacrifice, and burial, and it is interesting to note the mode or fashion of doing so among the primitive races of mankind, who have thus lithographed their history in the lands through which they travelled, or where they sojourned.

DISCUSSION.

Dr. CARTER BLAKE, complimenting Mr. Lewis on his excellent and philosophical paper, observed that there were stone monuments where Druids had never been heard of, and historical records of Druids (as in their metropolis, the country of the Carnutes) where stone monuments are almost or entirely absent. It had been well pointed out by Mr. Fergusson (*Rude Stone Monuments*, p. 5) that neither Cæsar nor any one else ever pretended to have seen a Druid in England. Suetonius (*Tacit. Annales* xiv. 29-30) speaks of them at Mona (Anglesey), but in English localities they were never alluded to. The passages in Cæsar (*Bell. Gall.* iv. 17) merely apply to the Druids in France. No stone monuments nor stone structures are mentioned by any author in connection with the Druids. The testimony of Tacitus (*Hist.* iv. 54), of Diodorus Siculus (*Hist.* v. 31), and of Strabo (*Geogr.* iv. 273) are alike silent on the point. Near the temples at Rügen in the Baltic, where the forest-encircled monuments were said to be, and where dolmens were, on the authority of Bonstetten, found in profusion, the Celtic race had not been proved to have existed. In fact, the description of the Rugii given by Tacitus (*Germania*, 43) indicated an essentially "Teutonic" nation.

The Hünengraben of various German localities were somewhat like the giants' graves of Antrim, but the Hnns were undoubtedly of small stature: the remains found in Plau, in Mecklenburg, indicated a race totally unlike the Celts.

The PRESIDENT said Arber-Low would appear to lie a little beyond the Roman Road from Buxton to Little Chester. It was no

doubt one of the most remarkable monuments of antiquity in Derbyshire. In the neighbourhood are a great many more lows or tumuli, in some of which urns, ashes, burnt bones, human bones, and other memorials have been found at different times. The word *arber* might mean in ancient British either a great enclosure or a great embankment (*ar-beor*) so that it might have been named from either its enclosure or from the embankment mentioned by Mr. Lewis. It might, however, be objected that none of the names of the neighbouring *lows* (as End-Low, Staden-Low, Wardlow, Hurdlow) would appear to be of Celtic origin. Mr. Lewis connected the name *Youlgreave* with sun-worship, and derived *youl* from a Celtic vocable signifying "sun." The last syllable of the name meant a ditch or tomb. The first syllable might be from *yule*, the name anciently given to Christmas, signifying a feast or holiday both in Saxon and Celtic; or it might come from the Cornish *yuhel*, high, or *youl*, the devil. It might compare with the Cornish name *Youlden*, signifying high hill, or devil's hill; and *Yolland*, high enclosure or devil's enclosure.

Mr. LEWIS thought Dr. Sinclair Holden was scarcely justified in assuming the "Giants' Graves" to belong to a pre-metallic period simply on the ground of absence of metal, because he admitted that they had been ransacked, and that by people who would probably have taken all the metal and left the stone implements. In reply to Dr. Carter Blake, he would say that dolmens and cists were common almost all through the world, and that it was only to the circles that he (Mr. Lewis) attached any racial importance; circles were, however, found in India, where Druids *so called* had certainly not been, but there was an unmistakable connection between the Indian and British circles and superstitions appertaining to them, and he believed the Druids were the upholders of them so far as Western Europe was concerned. The island referred to by Tacitus and supposed to be Rügen was not connected by him (Mr. Lewis) with the Druids, and, as he had already said, the existence of dolmens there proved little. The Celts had in pre-Roman times settlements in Germany and very probably in Scandinavia also. It was not safe to found too much on the absence of allusion in classic authors, as much of which we were ignorant was known to their contemporaries, and would, therefore, not be specified by them. Cæsar, having described the Druids in Gaul, and having stated that their chief seat was in Britain (not Mona), would not describe them over again in his remarks on Britain, and he besides saw little in this country but the military part of the population, which kept his attention pretty fully occupied. Suetonius found them in Anglesey, which Tacitus says was a common refuge for all the discontented Britons, and, as Druidism had been proscribed by the Romans, it was not likely that at that time he would find them anywhere else. Cæsar himself certainly spent an anxious day in the close vicinity of Carnac and Locmariaker, the stones of which no one but Mr. Fergusson doubted were there before the time of Cæsar, and yet he made no mention of them. Was it because he thought them unworthy of notice, or because such monuments were

sufficiently well known to his countrymen? The absence of stone monuments in places where the Druids were believed to have been, and their general location in desolate places might be due to groves having been substituted for them in places where groves were obtainable, or to the circles and alignments having been substituted for groves where the latter would not grow. Similar substitutions existed in India, Scandinavia, and among the Eskimos. The various meanings attributed by Dr. Charnock to the word *Youlgreave* would, he thought, all harmonise with his own views on the subject.

SPECIAL MEETING,

*Held at the Scottish Corporation Hall, Crane Court, Fleet Street, on
Friday, 23rd May, 1873, at 7 p.m.*

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

THE minutes of the last meeting were read and confirmed.

Elections announced:—

Fellows: T. HUTCHINSON, Esq., F.R.G.S., F.R.S.L., &c., H.B.M.

Consul at Callao; H. A. B. KENDRICK, Esq.

Local Secretary : C. F. TYRWHITT DRAKE, Esq., Syria.

The President, by the permission of Prof. Leitner, of Lahore, exhibited photographs of Siah-posh Kafirs. The President, after stating that these Kafirs dwelt in the Hindu Kush, between Afghanistan and Kafiristan, read the following letter from Prof. Leitner:—

To the President of the London Anthropological Society.

9, PARK ROAD, REGENT'S PARK, N.W.,

May 22nd, 1873.

MY DEAR CHARNOCK,

Much as I regret the schism that has, perhaps only momentarily, taken place among the Anthropologists of London (on whose council I was in 1864), I cannot refuse the little help which, in my present state of health, may be asked for from either side of a body of men prosecuting similar inquiries. I have, therefore, much pleasure in submitting, for the inspection of the Society of which you are the President, two photographs and one drawing of members of the mysterious colony that Alexander the Great is said to have planted in the Hindukush. To the best of my belief there exist no other representations of that race. The vignette, photographed by Messrs. Burke & Baker, represents my Kafir Jamshed, a nephew of the illustrious General Feromorz, who accompanied the Amir Cher Ali in all his wanderings, and who has gone through a series of interesting adventures whilst in that service. The other photograph,

representing another Siah Posh (so called from their dress of black goatskin), who is holding an arrow, was given to me by a missionary, and is probably the portrait of one of the three Kafirs who served in Lumsden's Guide Corps, and who were murdered on the way back to their country (thus making my Kafir the only surviving member of that race who has ever reached India). I have also added a sketch copy of the Kafir whom Burnes saw whilst at Kabul. You will perceive similarities in the three representations, and I am glad that your Society is the means of first presenting them to the public, in what may be termed, considering that this is only the first stage of the inquiry, a not altogether unsatisfactory series.

To the authorities quoted on the subject I have to add the "Note on Kafiristan" by Captain Raverty, which I only saw a few days ago, and which has been lent to me by the courtesy of the Royal Asiatic Society.

Regretting that a previous engagement prevents my complying with the kind invitation to your meeting, and hoping that this letter and the photographs sent will render my apology acceptable,

I remain, yours ever,

G. W. LEITNER.

The PRESIDENT also read the following remarks sent by Prof. Leitner:—

It is as difficult to deny, as it is to affirm, that the Siah Posh Kaffirs are of Iranic descent or Zoroastrian tradition. Some of their customs may be described indifferently as Buddhistic or Zoroastrian, or more safely by the negative proposition that their theological notions are certainly not derived from Hinduism, Mahomedanism, or Christian sources. It is still almost impossible for persons of any other race to penetrate to their somewhat extensive and secluded country. The Mahomedan belt of fierce spoilers surrounds them, and it is exceedingly difficult to obtain an undistorted account of the various tribes and their usages. The facts common to all seem to be—(1) hatred of Mussulmans; (2) exposure of the faces of their dead in wooden coffins on the top of mountains; (3) worship of or vows paid to notable deceased men. Beyond these particulars, confirmed by several travellers, and the rather extensive vocabularies collected by me, we know nothing certain of this homogeneous collection of strange highland tribes. The sources of our tangible knowledge about them are limited to a brief and hasty account by Burnes, who saw one of the tribe; the account of Mulla Najib, quoted by Elphinstone; Masson's description, who devotes a very ably-written chapter of his "Kabul and Belochistan" to them; the three guides who served under Lumsden, and from whom Dr. Trumpp collected a rough grammatical sketch, which after all may be a mere Kohistani dialect, as it is almost identical with my Lughmani; a notice published in the *Church Missionary Intelligence* of 1866, translated by the Rev. R. Clarke from the statements of Fazli Hagg, a native missionary, who is said to have paid the Kaffirs a

visit; the four Kaffirs at various times in my service, from whom I collected all that could be gathered, amounting to a good deal in the aggregate, but doing little to *settle* the disputed questions of their religious traditions and ethnological descent. These men had all light eyes, but were not fairer in complexion than many Kabulis. Such is a synopsis of our present sources of the little accurate knowledge now available in regard to the hunted Kaffirs. It may be mentioned that two or more of these men brought into contact with me professed some belief in Mahadeo and Indra, but this may be a misleading indication; they had been brought as prisoners through Cashmere, the ruler of which province seems to present the unique character of being a proselytising Hindu; and all within his territories who do not distinctly profess Mahomedanism are treated as adherents of Hinduism.

The thanks of the Meeting were voted to Dr. Leitner for his communication.

The Honorary Secretary read the following papers:—

REMARKS ON AUSTRALIAN BURIALS.

BY G. E. LEWIS, LOCAL SECRETARY, MOONTA.

NEARLY all the different Australian tribes have some peculiarity in their manner of disposing of their dead. Some bury in shallow graves in a sitting posture, the tribe in this locality to wit; others deposit the corpse in the branches of large trees, as do the natives on the Upper Murray; another tribe seems to dispose of them merely by placing the body upright inside the trunk of a hollow tree, many of which are to be found in the vicinity of our few rivers, and keeping them in that position by means of one or more pieces of wood jammed to the side of the tree; of course in this case the body in time falls to pieces. The Moorundi tribe, among whom I lived for three or four years, take more trouble than any others I have met with in my wanderings. The deceased person is carefully wrapped in his or her rug or blanket and bound up, the grave is sunk to about five feet, and, after the body has been deposited in the centre of the bottom, a log of wood is placed on each side of the corpse the whole length of the grave, which is filled with earth to the level of the logs; two short logs are then placed transversely at the head and feet, and earth filled in as before; then more logs are placed at the sides, and so on till the grave is filled up, when they build a "wurley" or bush-hut over it, make a bed of rushes or grass inside, and at the head place one or more lumps of chalk or some such pigment, which they also use as war paint and to paint themselves with when they hold a corroboree or native dance. All nets, spears, waddies, &c., are firmly bound on the outside of the "wurlees," none of the natives caring to possess anything that has belonged to a person deceased, but they *do not* bury them with the corpse.

I send copies of sketches of some Moorundi graves, and of a native funeral on the River Murray. The boat or bark canoe in the foreground of the latter contains the body, the other canoes contain fires to drive away evil spirits: these canoes are propelled, as you may see, by means of their fishing spears. I am rather at a loss to know the meaning of the blank space among the pines, unless it is intended to represent a fire, a thing that cannot be dispensed with at any of their ceremonies, as they think it drives away all evil spirits, an idea which seems to be common to all the tribes I have met with. Generally speaking, the natives have a great objection to any white man witnessing their funeral ceremonies, which are tedious to a degree, and in some instances so ludicrous as to render it difficult to maintain a sufficient appearance of gravity; I have been present on two or three occasions by invitation, as also at some of their other ceremonies, but it is not at all usual.

MARRIAGE BY CAPTURE.

BY C. STANILAND WAKE, V.P.L.A.S.

VARIOUS attempts have been made to account for the prevalence among peoples of all degrees of culture of what has been called "marriage by capture," or of rites which furnish evidence of its former existence. Mr. McLennan traces it to infanticide, which by "rendering women scarce, led at once to polyandry within the tribe, and the capturing of women from without." On the other hand, Sir John Lubbock ascribes the origin of "marriage by capture" to a desire on the part of individuals to acquire women for themselves, "without infringing on the general rights of the tribe." According to this view, communal marriage was replaced by special connections accompanied by the introduction of a foreign element, giving rise to the practice of *exogamy*. The reference to this practice (the necessity for which must, if Mr. McLennan's idea is correct, have preceded "marriage by capture," instead of the latter originating it) unnecessarily complicates the question under discussion.

Although *exogamy* is often associated with forcible marriage, the two things are perfectly distinct, and they have had totally different origins. Mr. Morgan very justly connects the former with certain ideas entertained by primitive peoples with regard to blood relationship, and it can be explained most simply and rationally as *marriage out of the clan*, it having sprang from the belief that all the members of a clan are related by blood, and therefore incapable of being united in marriage. This view is confirmed by the fact that tribes which are *endogamous* in relation to other tribes are *exogamous* in the sense that they comprise several clans, the members of none of which can intermarry among themselves. We have a curious example of this limited *exogamy* in the Chinese, among whom persons bearing the same family name are not permitted to intermarry. True *endogamy* would seem to exist among very few peoples, and when it is practised the custom is probably due to special

circumstances which, giving prominence to a particular clan, have enabled them to claim a caste privilege, or it may be owing to a necessity arising from the complete severance of the members of a clan from their fellows. The scarcity of women, whether occasioned by infanticide or polygamy, may have rendered exogamy more requisite, and it may have been complicated by forcible marriage, but none of these have any real bearing on its origin.

I propose to show in another paper that the opinion entertained by the writers I have referred to, that the primitive condition of man was one of communal marriage, is untenable, and if I am correct in this conclusion there will be no occasion to consider the argument that "marriage by capture" depended on such a social condition. The idea that "marriage by capture" originated in the necessity for exogamy, arising from infanticide or some other practice, is more plausible, and such an explanation of the custom may be accepted where it is not universal in a tribe, but resorted to only in particular cases or under special conditions. The capture of wives among the Australian aborigines is expressly accounted for by Oldfield as being due to the scarcity of women. But where forcible marriage can be traced to the action of individual caprice it must be treated as exceptional, and some other explanation must be sought for the widespread practices which are supposed to prove the former prevalence of that custom. From this standpoint Mr. McLennan's explanation is far from satisfactory, as may be shown by analysis of the incidents attendant on "marriage by capture" as practised by different peoples.

It is true that sometimes the carrying off of the bride is resisted by her friends, and is attended in some cases, as among the Welsh down to a comparatively recent period, by a sham fight between them and the friends of the bridegroom; although among other peoples, as with the Khonds of India, the protection of the bride is left to her female companions. In the great majority of cases cited by Sir John Lubbock, however, the suitor forcibly removes the bride without any hindrance from her friends. Occasionally, as with the Tunguses, the New Zealanders, and the Mandingos, she strongly resists. Among other peoples, as with the Esquimaux, the resistance is usually only pretended, and is thus analogous to the sham fight already referred to. In all these cases alike, however, it is the girl only who has to be conquered, and if the resistance were real it would depend on herself whether or not she should be captured. There are other incidents of this forcible marriage which have more significance than has hitherto been attached to them. Among the New Zealanders, if the girl who is being carried off can break away from her captor and regain her father's house, the suitor loses all chance of ever obtaining her in marriage. So, also, among the Fijians, if a woman does not approve of the man who has taken her by force to his house, she leaves him for some one who can protect her. Among the Fuegians the girl who is not willing to accept her would-be husband does not wait to be carried off, but hides herself in the woods, and remains concealed until he is tired of looking for her. According to Mongol

custom, the bride hides herself with some of her relations, and the bridegroom has to search for and find her. Something like the Fuegian custom is practised by the Aitas, among whom the bride has to conceal herself in a wood, where the suitor must find her before sunset.

In these cases the will of the bride elect is a very important element, and it is equally so in those cases where she is captured and carried off only after a prolonged chase. Thus, with the Kalmucks, according to Dr. Clarke, the girl gallops away at full speed, pursued by her suitor, and if she does not wish to marry him she always effects her escape. An analogous custom is found among the uncultured tribes of the Malayan peninsula. Here, however, the chase is on foot, and generally round a circle, although sometimes in the forest, and, as Bourien (quoted by Sir John Lubbock) says, the pursuer is successful only if he "has had the good fortune to please the intended bride." A similar custom is found among the Koraks of North-Eastern Asia. Here the ceremony takes place within a large tent containing numerous separate compartments (*pologs*) arranged in a continuous circle around its inner circumference. Mr. Kennan (in his *Tent Life in Siberia*) gives an amusing and instructive description of such a ceremony. The women of the encampment, armed with willow and alder rods, stationed themselves at the entrances of the *pologs*, the front curtains of which were thrown up. Then, at a given signal, "the bride darted suddenly into the first *polog*, and began a rapid flight around the tent, raising the curtains between the *pologs* successively, and passing under. The bridegroom instantly followed in hot pursuit, but the women who were stationed in each compartment threw every possible impediment in his way, tripping up his unwary feet, holding down the curtains to prevent his passage, and applying the willow and alder switches unmercifully to a very susceptible part of his body as he stooped to raise them. . . . With undismayed perseverance he pressed on, stumbling headlong over the outstretched feet of his female persecutors, and getting constantly entangled in the ample folds of the reindeer-skin curtains, which were thrown with the skill of a matador over his head and eyes. In a moment the bride had entered the last closed *polog* near the door, while the unfortunate bridegroom was still struggling with his accumulated misfortunes about half way round the tent. I expected," says the traveller, "to see him relax his efforts and give up the contest when the bride disappeared, and was preparing to protest strongly on his behalf against the unfairness of the trial; but, to my surprise, he still struggled on, and with a final plunge, burst through the curtain of the last *polog*, and rejoined his bride," who had waited for him there. Mr. Kennan adds that "the intention of the whole ceremony was evidently to give the woman an opportunity to marry the man or not, as she chose, since it was obviously impossible for him to catch her under such circumstances, unless she voluntarily waited for him in one of the *pologs*."

Judging only from the element of force observable in what are termed "marriages by capture," the explanation of them given by

Mr. McLennan appears reasonable. But, although capture may be an incident of exogamy, the customs under consideration are really connected with endogamy, in the sense that the parties to them belong to a common tribe. Moreover, those customs are wanting in another of the elements which would be necessary to justify their being classed as "survivals" of an earlier practice of forcible exogamy. This presupposes the absence of consent on the part of the relatives of the bride, but the so-called marriage by capture is nearly always preceded by an arrangement with them. The only exception among the various examples of such marriages mentioned by Sir John Lubbock is that of the inhabitants of Bali, where the man is said to forcibly carry off his bride to the woods, and to *afterwards* effect reconciliation with her "enraged" friends. It is not improbable, however, that rage may be simulated in this case as in others, and that the capture is arranged beforehand with them. Sir John Lubbock himself explains an apparent act of lawless violence among the Mandingos as an incident of "marriage by capture," on the ground that the bride's relatives "only laughed at the farce, and consoled her by saying that she would soon be reconciled to her situation;" and it appears that her mother had previously given her consent to the proceeding. A mere general understanding, if universally recognised, would indeed be as efficacious as a special consent, and whether the consent of the parent has to be obtained previously to overcoming the opposition of the bride, or whether this has to be overcome as a condition precedent to the consent being given, is practically of no importance. We seem to have an example of the latter in the marriage customs of the Afghans as described by Elphinstone. Among this people wives are always purchased, and the necessity for paying the usual price is not done away with, although a man is allowed to make sure of his bride by cutting off a lock of her hair, snatching away her veil, or throwing a sheet over her, if he declares at the same time that she is his affianced wife.

The facts just mentioned lead to the conclusion that the "capture" which forms the most prominent incident in the marriage customs under discussion has a totally different significance from that which is connected with exogamy. In the latter case force is resorted to to prevent the possibility of opposition by the tribe to whom the victim of the violence belongs; but in the former, as the consent of the woman's relatives has already been given, expressly or by implication, the force must be to overcome the possible opposition of the woman herself, whether this may arise from bashfulness or from an actual dislike to the suitor. We have here an important distinction, and it points to a state of society where woman has acquired a right to exercise a choice in the matter of marriage. Before this right could be fully established the suitor would be allowed to obtain her compliance by force, if necessary, as with the Greenlanders, among whom, according to Crantz, the bride, if after she has been captured by the old women who negotiated the marriage, she cannot be persuaded by kind and courteous treatment, is "compelled by force, nay,

sometimes by blows, to change her state." But even among the Greenlanders, if a girl had great repugnance to her suitor, she could escape marriage by betaking herself to the mountains. A still more efficacious plan is the cutting off of her hair, which frees her from all importunity, as it is accepted as a sure sign that she has determined never to marry. "Marriage by capture" has thus relation not to the tribe but to the individual immediately concerned, and it is based on her power to withhold her consent to the contract made between her suitor and her relatives. Among some uncultured peoples the opposition of the bride elect is effectually overcome by force, but it is seldom that she is not allowed the opportunity of escaping a marriage which she dislikes.

If this explanation is accepted, the incidents which are now associated with "marriage by capture" in its more advanced phases are easily explicable. When once it has become usual for the bride to show a real or simulated opposition to the proposed marriage, as might easily be the case among peoples who, although uncultured, esteem chastity before marriage, it would in course of time be firmly established as a general custom. Thus, when a Greenland young woman is asked in marriage she professes great bashfulness, tears her ringlets, and runs away. When the show of opposition had become a matter of etiquette it would, notwithstanding that the marriage had been previously arranged, be joined in by the friends of the bride, who, by a fiction, is being carried off against her will. Hence the customs of having a sham fight before the bridegroom is allowed to gain possession of his prize, and the placing of impediments in the way of his catching her in the chase, neither of which has any relation to a supposed primitive practice of forcible abduction from a hostile tribe. Except in the more advanced stages of society, where the parents claim the absolute obedience of their daughters in the matter of marriage, the ceremony which accompanies the "marriage by capture" still gives, as we have seen, an opportunity to the bride elect to exercise a negative choice should she really desire to do so; and as it is the same among primitive peoples, such as the Esquimaux, who may be supposed to have retained the original form of the custom, we must conclude that it has nothing to do with exogamy, and that it has no bearing on the purely hypothetical practice of communal marriage.

DISCUSSION.

MR. CHURCHILL thought that in nearly all the cases mentioned the women intended to be captured. Even now they were in the habit of expressing hesitation and reluctance which they did not feel. The affectation was not confined to women. Bishops used to profess a desire to avoid their sacred responsibilities, though they had been for years intriguing and canvassing for the office; and, till the election of Addington, who refused to submit to the buffoonery,

the Speaker of the House of Commons was carried to the chair kicking and struggling with his friends all the way.

The PRESIDENT did not understand how infanticide could cause a scarcity of women; but the remark probably related to female infanticide as practised by the Chinese, Hindus, and Singhalees. The terms endogamy and exogamy had been invented to denote respectively a marriage within and marriage without the tribe. They were not very good terms, but perhaps quite good enough for the present century. Polygamy and polyandry might no doubt to some extent lead to marriages without the tribe, and to marriage by capture. The President thought the author of the paper had given a better explanation of the origin of the custom than that given by Sir John Lubbock and others. Marriage by capture is not confined to any particular part of the globe. It is very common in Europe, although the proceedings are usually carried on in a more refined manner. It is quite the fashion in Roumania, where it begins with a serio-comedy, and winds up with a farce.

The Treasurer read the following paper:—

THE SOCIAL CONDITION OF WOMAN AS AFFECTED BY "CIVILISATION."

BY C. STANILAND WAKE, V.P.L.A.S.

THE legend which teaches that the first woman was formed out of one of the ribs of the first man must surely be true, seeing that it agrees perfectly with the position which woman holds among all primitive peoples.

With few rights, if any, in this life, it is not surprising that her subordination is continued in the spirit world, and that, if she gains admittance at all into the native heaven, it is usually under peculiar circumstances. Thus, the Fijian women are voluntarily strangled or buried alive at the funerals of their husbands, from the belief that in *their* company alone "can they reach the realms of bliss;" to which is added the idea that she "who meets her death with the greatest devotedness will become the favourite wife in the abode of spirits." What becomes after death of the women who do not die with their husbands is perhaps uncertain, but there is reason to believe that among many uncultured peoples as little thought is given to the future state of such unfortunates as to that of animals killed for food. In fact, among the Papuan tribes, and with many of the natives of Australia, women are highly prized for cannibal purposes. Judging from this fact we shall not expect to find that during life they are much cared for, unless it be on the principle which sometimes leads cannibals to fatten their victims before preying on them. This is not the case, however, with the natives of Australia, and women among them not only have to endure many

privations, but are most barbarously treated. Wilkes states that they are considered as articles of property. Among few peoples is the lot of woman so cruel as with the aborigines of Australia.

In this respect, however, there is little difference with any uncultured race. Marriages of affection are unknown to the Fijians, and women remain faithful to their husbands from fear rather than from love. Like other property, says Admiral Wilkes, "wives may be sold at pleasure, and the usual price is a musket. Those who purchase them may do with them as they please, even to knocking them on the head." Thus, among the Fijians women are, in the true sense of the word, property, and marriage is a matter of bargain and sale. This remark is applicable to peoples less savage than the untamed Papuan. Among the pastoral tribes of East Africa, and also the black tribes of Madagascar, women are, if anything, thought less of than cattle. The Kafirs, indeed, value them *in* cattle, and girls pride themselves on the price they fetch. The condition of the Kafir wife agrees with the estimation in which she is held. Woman occupies much the same position with the true negro tribes, and even among the North African peoples who have embraced Mahomedanism the woman is subject absolutely to the will of her husband. Wives do not appear to be treated with cruelty, however, and according to Mr. Winwood Reade they often by force of a certain public opinion exercise a peculiar influence over the men in domestic affairs. Among the Wahuma of East Africa visited by Speke and Baker, women, curiously enough, are not regarded exactly as property, and their condition is probably on the whole superior to what it is among the Negro or Kafir tribes.

Women occupy among the American aborigines a position of, on the whole, great hardship. They are generally considered as inferior beings, and their lives are spent in the lowest and most laborious drudgery. Throughout both North and South America, with few exceptions, a wife is treated as the property of her husband, who will lend her to a friend with as little compunction as he would a hatchet. Moreover, as amongst most uncultured peoples, she is always liable to instant divorce. This arbitrary treatment and the hardships which women suffer have probably much to do with the prevalence of infanticide, especially of female children.

The condition of woman among the Eskimo appears to be more bearable than with the true American tribes. This is shown by the existence between husband and wife of a certain attachment which sometimes ripens into real affection, and yet, according to Sir John Ross, the Eskimo women were considered merely as property or furniture. It is not far otherwise with the Greenlanders. Crantz declares that from their twentieth year the life of their women is a mixture of fear, indigence, and lamentation.

Among some of the Polynesian Islanders, and particularly the Samoans, woman is more esteemed than with others, but usually she is treated on the same principle as with most uncultured peoples. As shown by many of their customs, she is looked upon as an inferior creature. Captain King remarked that at the Sandwich Islands,

when these were first discovered, less respect was shown to women than at any of the other Pacific Islands. which Captain Cook's expedition had visited. All the best kinds of food were forbidden them. In domestic life they lived almost entirely by themselves, and, although no instance of positive ill-treatment was actually observed, yet it was evident that "they had little regard or attention paid them."

The facts stated sufficiently establish that among primitive peoples woman is regarded as "property." Usually female children are thought little of by their parents, and are cared for only as having a certain exchange value. In the more advanced stage represented by the pastoral peoples they are more highly prized, because, although a man may prefer his cattle to his daughters, these, if successfully reared, will bring a certain addition to his stock. A curious relic of this primitive idea of the exchange value of woman is yet extant in Afghanistan, where crimes are atoned for by fines estimated partly in young women and partly in money. It is not surprising that the man who has purchased his wife should look upon her in the same light as any other chattel which he has acquired, and this *property* notion is at the foundation of most of the social habits of savage life.

It must not be thought that women, even among the most uncultured peoples, are altogether without influence, if not over their own condition, yet over the minds of others. The wars, if such they can be called, waged by the Australian aborigines are generally due to the old women, who incite the men with the most passionate language to revenge any injury to the tribe, and they perform the same office among other uncivilized peoples. It is well known what influence over the conduct of such peoples is exercised by the sorcerers or wizard doctors, and in many parts of both Africa and America women as well as men exercise that calling. It is not often that among the more warlike races women attain to the position of chief, but such a state of things is not unknown to the African tribes, and in Madagascar; and in the Polynesian Islands woman is as competent as man to occupy the throne.

Nor is woman exactly without *rights* among uncultured peoples. At first these relate to the disposition of her own person before marriage, and the existence of such a right is implied in the widespread customs which have been thought to give evidence of a primitive social phase described as "marriage by capture." As I have shown elsewhere, the exercise of force in these customs is wholly secondary, their primary reference being to the will of the bride. Mr. Darwin in a recent work well points out that among uncultured peoples girls have more choice in the matter of marriage than is usually supposed. In my opinion, indeed, the so-called marriage by capture has originated solely in its exercise.

It by no means follows that the position of a woman is among uncultured peoples more bearable because she has managed to marry the man whom she prefers. Where the marriage has been preceded by actual attachment, no doubt it usually is so; and in that case,

especially if she has much intelligence, a wife may have great influence over her husband. It is probable that polygamy has been an important instrument in improving the condition of the married woman. With most uncultured peoples who practise polygamy, a first wife is the head wife, and all the succeeding ones are under her control. The former thus occupies a position of influence in the household; she is less roughly treated by her husband, and she gradually acquires certain rights. Mr. Shooter says that among the Kafirs all the cows which a man possesses at the time of his earliest marriage are regarded as the property of his first wife, and after the birth of her first son they are called *his* cattle. Theoretically, the husband can neither sell nor dispose of them without his wife's consent. Cattle are assigned to each of the wives whom the husband subsequently takes, and the wife who furnishes the cattle to purchase and endow a new wife is entitled to her services, and calls her "*my* wife." These rights of property are, however, in reality of very slight value. On the death of the husband the women of his household descend to the son who is entitled to the cattle belonging to each family division, and, if he dies without direct heirs, to the next male relative, who is nevertheless bound to provide for them.

It is difficult to conceive that the improvement in the position of woman witnessed among civilised peoples can have been much affected by any change that could take place in the relation between husband and wife, so long as the latter is treated as mere property. I am disposed, therefore, to trace that improvement to another source, and to look upon it as springing from the maternal relationship. Stern as may be the treatment experienced by a wife, a mother is nearly always highly honoured. This is especially the case among the African tribes. The same feeling is not unknown to the Arabs, whose sacred book declares that "a son gains Paradise at the feet of his mother." Inconsistent as it is with our ideas, there can be little doubt that the curious custom of strangling parents, or burying them alive, when they have become old and helpless, is looked upon as a mark of respect and regard. Wilkes was assured by the missionaries that the Fijians were kind and affectionate to their parents, and that they considered the strangling custom "as so great a proof of affection that none but children could be found to perform it."

The Chinese have preserved the germs of the primitive idea, according to which woman is a kind of property, and among them still a wife may be sold, although only with her own consent and as a wife, and not as a slave. These restrictions show a great advance, which is evidenced also by the fact that wives possess equal rank with their husbands. Moreover, mothers are allowed a certain degree of influence over their sons, who are, indeed, obliged at particular seasons to pay homage to them, the emperor himself not being exempt from performing the ceremonies of the *kotow* before his mother. Where the filial piety is so strong, it is not surprising that ancestral worship extends to the mother as well as the father, and that the memory of women celebrated for their virtues is per-

petuated. Nevertheless, Chinese women are almost absolutely in the power of their fathers, husbands, and sons, to whom they owe obedience as the representatives of Heaven.

In some of their customs the Romans bore considerable resemblance to the Chinese. With the former, as among the latter, the father was absolute within his family, and originally a woman, as part of her husband's *familia*, could be sold or put to death by him without interference by the state. This was not so if the wife was only *uxor* and retained her own familia, in which case, however, her children belonged to her husband. The latter form of marriage, or the custom known as "breaking the usus of the year," gradually came to be the most usual, and it resulted in the emancipation of women from the control to which they had before been subjected. The old Roman, Cato the Elder, complained of their having much power in political matters, and statues were even then erected in the provinces to Roman ladies. Unfortunately, the emancipation of woman among the Romans was attended with a licence which had the most deplorable results, both moral and social.

In Greece the peculiar institutions established by Lycurgus gave the Spartan women much influence, and they were even said by the other Greeks to have brought their husbands under the yoke. On the other hand, among the Athenians women were generally viewed as inferior to men, and wives were treated rather as household drudges than as companions. Before marriage girls were kept in strict seclusion, a habit which in the middle and higher classes was long retained after marriage, wives seeing little even of their husbands or fathers. It would appear, however, to have been different during the heroic age, when the intercourse between husband and wife, says Mr. Gladstone, was "thoroughly natural, full of warmth, dignity, reciprocal deference, and substantial, if not conventional, delicacy."

It is to the development of the emotion of love that the recognition of the true position to which woman is entitled must be traced. The parent has influence because he or she is respected, and love induces the same feeling in relation to the wife and woman in general. Thus, at least, it would seem to be with Eastern peoples, who probably closely agree in social habits with the ancient Greeks. Among the Bedouins, in whose manners we may doubtless trace those of the early Hebrews, women enjoy a considerable degree of liberty; and hence marriages, although accompanied by the incidents of wife-purchase, are often governed by choice, and husbands make real companions of their wives. The respect paid to them is so great that if a homicide can succeed in concealing his head under the sleeve of a woman and cry *fyardhék*, "under thy protection," his safety is insured. Pallas mentions an analogous custom as existing among the Circassians, who also highly esteem woman. The same may be said of the Afghans, among whom, although marriage is still a matter of purchase, love-matches are by no means rare. Wives often exercise great influence in Afghan households, the husband sometimes even sinking into a secondary place.

How far the condition of woman has been mitigated among the

Bedouins and Afghans by Mohammedanism is an open question. According to the Koran, the Arabs were accustomed to treat their females with great cruelty, while one of the chief features of Mohammed's teaching is the high position accorded to them. This is somewhat remarkable considering the fact that the Prophet insisted on the impropriety of "marriage" in the Christian sense of the term. He declared that wives ought to be purchased, and he always calls them slaves, although they are distinguished from the ordinary domestic slaves by the term *Odalisque*. Probably Mohammed's object in forbidding "marriage" was merely to enable the husband to retain the domestic authority, which man is so jealous of in the East, for he speaks in the highest terms of woman, and of her husband's duty towards her. This is consistent, however, with the somewhat degraded condition of woman in certain Mohammedan countries. In permitting polygamy Mohammedan law accommodates itself to the habits of an earlier stage of social progress, and tends to perpetuate many of its objectionable features. As remarked by Lord Kames, polygamy is intimately connected with the treatment of woman as a slave to be purchased even in marriage. But, great as are the evils attending that custom, they depend in great measure on special circumstances, and they are capable, as Mohammed's teaching shows, of considerable mitigation. Probably the practice of polygamy has never among a civilised people been accompanied by more baneful results than it exhibits in modern Egypt, if we can accept the testimony of Miss Martineau: this lady somewhat unjustly remarks that, "if we are to look for a hell upon earth, it is where polygamy exists;" and she adds, that "as polygamy runs riot in Egypt, Egypt is the lowest depth of this hell." Polygamy has not in India so degrading an effect, but, of the six qualities ascribed to woman by the code of the so-called Gentoo laws, all are bad ones. A really good wife is, however, so highly esteemed that if a man forsake her of his own accord he is to receive the punishment of a thief. Perhaps the scarcity of such wives accounts for the fact mentioned by Bishop Heber, that throughout India anything is thought good enough for women, and that "the roughest words, the poorest garments, the scantiest alms, the most degrading labour, and the hardest blows are generally of their portion." No doubt women of the lower castes are here referred to, and it cannot be supposed that all women are thus treated. The Abbé Dubois, indeed, affirms that among the Hindoos the person of a woman is sacred, and that, however abject her condition, she is always addressed by every one by the term "mother." If we may believe the abbé, who lived for thirty years among the natives, the position of Hindoo women is far superior to what Europeans in general believe.

Judging from the abbé's description, the properties of a good wife, according to the compiler of the *Book of Proverbs*, would probably meet with the perfect approval of the Hindoo.

Much as the emancipation of woman is aided by the development of love between the sexes, she is indebted to religion for its completion. The description given by Tacitus of the high honour in which

women were held by the ancient Germans, as being in some sense holy, and as having the gift of prophecy, may be somewhat exaggerated; but, if it is true that the safest mode of binding that people to their political engagements was to require as hostages women of noble birth, we may well believe that their regard for the female sex had a religious basis. Tacitus adds, that the care of house and lands and of the family affairs was usually committed to the women, while the men spent their time in feasting, fighting, and sleeping. A happy commentary this on the question whether the former is capable of managing her own affairs! The true position of woman, however, is not that assigned to her by the ancient Germans, who gave her a fictitious superiority based on superstition. We must look to the peoples among whom have flourished the religions which have permanently influenced the world for evidences of the continued improvement of that position. This is proved by the fact that polygamy, the practice of which appears to be the almost universal rule up to this stage, only gradually gives way to monogamy as an indirect consequence of religious teaching, its persistence in Mohammedan countries showing that the influence of the Koran, so far as woman is concerned, has been social rather than religious.

That which has had the most striking and lasting effect over the social status of woman in the East is undoubtedly Buddhism. Gautama preached salvation to all human beings alike, rich and poor, male and female, and some of his first converts were women. His teaching went to the root of the prejudice so powerful in the East which leads man to consider woman his inferior, and she was at once raised to a level with him. Hence in most Buddhist countries women are treated as man's companions, and not as his slaves. The fact that the former are allowed to take monastic vows reveals the true source of female emancipation. It is a recognition of the capability of woman to attain to the spiritual rebirth, and, as a consequence, not only to escape from the material life with its continued evils, but to secure supreme bliss in another state. The idea of the spiritual rebirth was at the foundation of the ancient mysteries, and therefore the admission to them of woman was a sign of her emancipation. The Zend-Avesta places men and women on the same footing, and among the ancient Persians the latter sometimes occupied even high sacerdotal positions. They were, moreover, freely admitted to the sacred mysteries. M. Lajard says that the monuments show us women not only admitted as neophytes to the celebration of the mysteries, but performing there sometimes the part of godmother (*marraine*), sometimes that of priestess and arch-priestess. In these two characters they assist the initiating priest, and they themselves preside at the initiation, assisted by a priest or an arch-priest. The learned French writer concludes, therefore, that "women among the peoples endowed with the institution of the mysteries found themselves thus placed in a condition of equality with man." That which had been begun by Buddhism and Mazdaism was continued by Christianity, which knows no distinction of sex or position, however much its principles may from time to time have suffered at the

hands of ignorant or irrational legislators. Nevertheless, in the saying of St. Paul that Christ is the head of the man and the man the head of the woman, we have a relic of the ancient belief in the inferiority of woman which was closely associated with the Oriental dualistic philosophy. The place which was assigned to her as a symbol of material impurity was at the foundation of the doctrine of celibacy which possessed so great a fascination over the Christian Church in the fourth and fifth centuries. Yet that doctrine exercised an influence for good over the condition of woman herself, connected as it was with the desire for spiritual purity, which was supposed to be her gift no less than that of man, and to entitle her as well as him to the crown of martyrdom.

I have now briefly traced the gradual change which has taken place in the condition of woman, starting at the point where she is looked upon as the "property" of her father or husband—an article of barter or sale, subject to be dealt with at the discretion of her master and owner, man. We have seen that, with the strengthening of the feeling of sympathy between parent and child, the mother acquired an influence over her son which was accompanied by an amelioration of that condition. With the development of love between the sexes, the respect which man before entertained towards his parents was extended to his wife, who was thus placed on an emotional equality with him. Finally, with the admission of women to the benefits to be derived from the rebirth claimed for the disciples of Gautama and Zoroaster, and to the spiritual privileges of Christianity, that equality became from one point of view perfected.

The survey we have taken reveals clearly the important truth, that down to a comparatively recent period in the world's history woman has occupied a wholly subordinate position. Even now the equality which is conceded to her among Christian peoples is more spiritual than social. There are certain rights to the attainment of which woman may legitimately look forward before she can be said to have gained her perfect emancipation. This is not the place to treat of "woman's rights," and let me add *duties*, but I may remark that the condition of the members of the female sex has on the whole ever borne a strict ratio to their moral character and mental capabilities. Let woman, therefore, show herself, not in a few individual cases, but generally worthy, and she will soon fully acquire the position which she is entitled to occupy in the economy of Nature. That position, however, will never be one of absolute equality with man so long as she remains a woman, and until she ceases to be such she must in some sense be subordinate to him.

In conclusion, let me quote the words of one whose teaching on this, as on all other subjects, demands the most thoughtful consideration. Aug. Comte says, "the present *émeute* of women, or rather of some women, will in the end have no other result than that of presenting experimentally the insurmountable reality of the fundamental principle of such subordination, which must then react profoundly upon all the other parts of the social economy; but this useful conclusion will be found purchased at the price of much

public and private misery, which a more philosophical advance would have shunned, were such rationally now possible. If this disastrous social equality of the two sexes were ever really attempted, it would at once radically disturb the conditions of existence of the sex that some desire thus to favour, and with regard to which the present protection, that must alone be completed by regulating it, would then be converted into a competition impossible to habitually sustain. Such an assimilation will otherwise tend morally to destroy the principal charm which now draws us towards women, and which, resulting from a sufficient harmony between social diversity and organic diversity supposes women to be in an essentially passive and speculative situation, that can in no way hinder their just participation in all great social sympathies. If such a principle of repulsion could be pushed to its extreme natural limit, I venture to affirm that it will appear directly opposed to the reproduction of our species, which restores, in this respect, the biological point of view, more intimately connected there than elsewhere with the sociological."

DISCUSSION.

The thanks of the Meeting having been voted to Mr. Wake for his papers,

Mr. JAMES MOWATT, M.A., F.R.G.S., said, as to instances of Mahomedans discountenancing regular marriage, Robertson (Hist. Emp. Charles V. book xi.) explains how the Ottoman sultans after Bajazet's defeat and family outrages did not choose to marry and run the risk of dishonour, and that it was only by a series of intrigues that Roxalana got herself made the sultana of Solymán, and so broke down such a custom, the origin of which was political rather than religious. As to Miss Martineau calling Egypt and its polygamy a "hell upon earth," was polygamy the cause? Is not Oriental listlessness due rather to exertion being considered low and unworthy? Is it not hence that all the wealthier are prone to sensuality and consequent apathy and weariness. Lady Duff Gordon related an anecdote of an old Turk's reply to a young Englishman on polygamy, "Young man, in all my life I have seen the face of seven women: they are there [pointing] in my house now: *where are all yours?*" Polygamy was often a question of vanity rather than liking. His experience in Turkey showed him there was much affection between man and wife, much freedom, women going about in towns together, meeting with consideration and insisting upon it, taking as a matter of right good places in a crowd or at a procession. Great difficulty occurred at times in dealing with refractory women from dislike of Turks to lay hands on them. The keeping women isolated was curiously maintained at times as on ship decks, and by taking special compartments for them; but still it was but a fiction; they could be fairly looked at, and none but the old and ugly really effectually concealed their faces—a practice not peculiar to the East. As to religion, so far as it made people generally more sociable, so far did it make things better for women, and put them on a higher level; but the Christian religion had not as a

matter of principle emancipated women, or indeed touched the question directly. Speaking generally, the position of women tallied with freedom and strength and advancement; across the Channel every degree Eastward took us more and more away from this, till at Vienna and Pesth the point was reached where women are begun to be looked on more as objects of sensual gratification, and are more gross in their sensuality in proportion as they belong to the less civilised races; *e.g.* Czechs and Hungarians were more gross than Germans. Comte was fanciful and retrograde in his religion. Mill did not underestimate women. He believed in no artificial line, but in open competition.

Dr. CARTER BLAKE would not consider woman either as a beast of burden, an object of exchangeable currency, or as an article of diet, but turn to a few anthropological considerations. The Wahumas, which Baker and Speke had described, merely showed the relics of a Mohammedan civilisation, not in any way resembling the customs of indigenous Africa. The Samoans were said to be more courteous to the female sex than other Polynesians, yet they were more negroid and of less moral excellence than most. The negro race, ever seeking some abnormal mode of gratifying the sensual passions, had encouraged female negro queens, and reference to mediæval authors was cited respecting some of the African princesses, especially in Africa. The Book of Proverbs had been cited, in which Solomon (xxxix. 10) had appraised the probable value of a female slave. "*Mulierem fortem quis inveniet? Procul et de ultimis finibus, pretium ejus.*" Even if the nonsensical reference to "rubies" in the English version were admitted, it must not be forgotten that the ruby was not one of the highest precious stones which the Jewish mystical theology venerated. The passage by no means gave to women a higher price than appeared the custom amongst nations in whom they were purely objects of trade and barter. The Spartan *ἐταῖραι* had been referred to; we know by their writings they were clever, yet they were unmarried. With regard to the alleged evil effects of polygamy, the statistics given by Captain Burton in his "City of the Saints" were far from bearing out the charge of immorality against the Mormons, who probably attained a higher degree of virtue than the covertly polygamous Englishman, or polyandrous Englishwoman. Tacitus had over and over again been referred to as speaking of the respect with which women were treated in Germany, but it should not be forgotten that the natives whom Tacitus described were on the extreme West, closely abutting on the Rhine, and of probably Celtic origin.

After some remarks from Mr. M. C. BUCKLEY,

Mr. KAINES said, that, if he remembered rightly, M. Comte had said somewhere that the modern agitation for "women's political rights" tended to strike at the marriage-tie (numerous instances of this have been furnished in America), and that it was another sign of the anarchical and subversive spirit of the time, when all human relationships, the oldest and best, as well as those oldest and worst, were being considered from an antisocial point of view. M. Comte's

conception of woman, and her function in the new social order which he believed would grow out of the old, was, that she would be the living spiritual representative of humanity in its threefold aspect, past, present, and future (in the same way that humanity had been tenderly and pathetically typified by Catholicism in the Virgin Mary, *minus* the theological element). M. Comte would have the intellectual and moral faculties of both sexes educated and disciplined in precisely the same way, and his theory of education was a very different thing from the feeble pretension now bearing that name. In no modern work was there so true or just a perception of woman's real rank and needs as in that of Auguste Comte's *Positive Polity*.

Mr. A. L. LEWIS thought many persons would be startled at Mr. Wake's suggestion that polygamy had a tendency to improve the position of women, though he had certainly given good reasons for that view. Mr. Lewis mentioned a custom which prevailed among some tribes in Central America of cutting their wives' heads off and preparing them as memorials by boiling in a peculiar manner—the first stage of the process not always being deferred till after death;—and, having touched on various points raised in the paper and discussion, concluded by expressing his concurrence in the opinion of their old friend Mr. L. O. Pike, that woman was neither superior nor inferior, but the complement, to man.

The PRESIDENT said, that the ladies ought to be very well satisfied with the paper, because, according to Mr. Wake, they now hold the exact position in the world which they are now entitled to. The author of the paper said the social position of "the female sex has on the whole borne a strict ratio to their moral character and mental capabilities." In some countries the women had very great privileges. Among the Newars of Nepaul they may have as many husbands as they please, and are at liberty to obtain a divorce upon the smallest pretext. Among the Nairs of Malabar, a man can only have one wife, but a woman may have several husbands. In Paraguay a Guana woman will not enter into the married state without detailed stipulations with her proposed husband and his parents as to the life each of them shall lead—whether, for instance, the husband shall have only one wife, or the wife shall have several husbands, and how many. Divorce is allowed to both sexes, and the women are much given to it. Miss Martineau spoke of the mental and moral degradation of the females of Egypt. This is not exactly the case in all countries where polygamy is practised. The Mormons are probably the most moral people in the United States except the native Indians. The Turkish women invented the language of flowers, and we are told that the women of the harem pass most of their time in writing poetry.

The Meeting then adjourned.

Reviews, &c.

THE NATIVES OF SOUTH AFRICA, Ethnologically and Anatomically described. By Gustav Fritsch, M.D. Together with an Atlas containing sixty portraits.*

THIS grand work may be regarded as instituting a new era in Anthropology. Its accomplished author is a traveller fully endowed with competent knowledge and appliances, who visited and resided in a country containing many aboriginal races, with a view to their thorough study and elucidation. Books of voyages and travels have long been the fact-books from which anthropologists have derived their data; they have long constituted the main stock of the science. They have been of immense value, but at times partial, untrustworthy, and misleading, chiefly because their authors have not had any education fitting them to become travellers and ethnographers, because their objects have been heterogeneous, often either directed to trade or the dissemination of a new religion. Few travellers have had a medical education, that which especially affords one ample elements of natural knowledge, and fits him in particular for the study of man in all his phases. Not many travellers have been competent draughtsmen, few fully able to bring the resources of that wonderful discovery of our day—photography—to obtain aid in depicting the natives. Dr. Gustav Fritsch is richly endowed in almost every essential. He has had a medical education, and to him the study of man is not a new and foreign pursuit, but one congenial and accustomed, upon which he is able to bring all the varied resources of his science to bear; beyond which he is a competent draughtsman and photographer. It is not surprising, therefore, that a zealous traveller like Dr. Fritsch should have estimated anthropology much more justly than most of those who have preceded him. He has devoted an ordinary handsome octavo volume of upwards of 400 pages to an account of his travels and residence in South Africa, which, with true manly feeling, he has dedicated to his "dear mother in deep thankfulness."† But when he passes to the object of chief interest in South Africa—the native races—he gives to them a much larger imperial octavo volume of upwards of 500 pages, accompanied with ample tables of measurements of the different races, lithographic plates of eighteen skulls, each represented in four aspects of quarter-size, eleven plates of pelvises, each represented in two aspects half-size, and other plates of the skeletons of the feet of three races—the Kaffer, Hottentot, and Bushman—and a test-plate

* Die Eingeborenen Süd-Afrika's ethnographisch und anatomisch beschrieben von Gustav Fritsch, Med. Dr. Assistent am königlichen Anatomischen Institut und Privatdocent an der Universität Berlin. Mit zahlreichen Illustrationen grösstentheils nach Original-Photographien und Zeichnungen des Verfassers im Holzschnitt ausgeführt, zwanzig lithographischen Tafeln mit Abbildungen einzelner Skelettheile, u.s.w. Nebst einem Atlas enthaltend sechzig in Kupfer radirte Portraitsköpfe. (Breslau, 1872. 1 vol. imp. 8vo and 1 vol 4to.)

† Drei Jahre in Süd-Afrika. Reiseskizzen nach Notizen des Tagebuchs zusammengestellt. Mit zahlreichen Illustrationen nach Photographien und Originalzeichnungen des Verfassers. (Breslau, 1868.)

of the different colours of the skin. In addition to these illustrations, Dr. Fritsch has placed in the hands of an able and accomplished artist, Professor Hugo Bücke, his numerous photographs of natives. These have been delicately etched with great skill and beauty, yet without any infringement upon fidelity, in the thirty tables of this fine atlas, upon which are exhibited sixty natives of different races. Each portrait is represented in two aspects, which may truly be said to be busts, in full face and in side face. These plates are executed faithfully, and yet are quite devoid of that gloom and muddiness so commonly seen in engravings after photographs. The ability of Professor Bücke ought not to be omitted to be mentioned. We have thus been particular in describing the contents of the work of Dr. Fritsch, and are by this means shadowing its importance to anthropologists. In giving some further notice of these excellent volumes we must confine ourselves within some definite limits. We shall first of all endeavour to ascertain the principles by which the author has been guided in defining and describing the native races of South Africa, and then, for the present, confine ourselves to his first section.

We cannot refrain from congratulating the author upon the principle with which he sets out in describing the native races of South Africa. In the introductory portions of his volume he takes care to point out that his object is to give *positive data*—to establish *facts* as the only basis of true anthropology. He glances slightly upon the course the science has taken since the days of Blumenbach, “from whom dates our modern anthropology.” He alludes to the question whether mankind originated from one pair or from many which differed from one another, and its bearing upon the Bible; to Darwin’s hypothesis as expressed in his *Origin of Species*, more fully explained in his *Variation of Animals and Plants under Domestication*, which did not essentially go further than his first work; and the *Descent of Man*, in which he considers the author untrue to himself, since he begins to leave the region of natural science, observation, and to allow himself to be driven into the wide field of speculation with full sail. “If ever the Arabic proverb has been verified, ‘Allah! defend me from my friends: against my enemies I can defend myself,’ Darwin is in a position to apply it to himself.” The author says the most mournful thing is that the natural philosophers of the renaissance have misled Darwin, and induced him to cast himself unreservedly into their arms, and speculatively to supply everything which his marvellous investigations are not able to explain satisfactorily. Goethe was justified in saying that “the man who speculates is like a mule upon a barren heath driven about in a circle by an evil spirit.” In this part of his introduction the author expresses himself more fully upon Darwinism, which is important as coming from a German man of science, for his countrymen have been usually regarded as prone to airy speculative views, and fond of hypothesis. He says, the comprehensive conclusions which are based in so manifold a manner upon Darwinism must be regarded at present as inadmissible and unscientific, since the chain of proofs is not so complete as to explain

the questions at once and decisively ; thus, for example, the derivation of men from the apes cannot by any means be put down as proved. He who willingly indulges his fancy upon a scientific theme constantly finds in natural philosophical contemplations a rich and attractive material, but strict investigation must pursue a much slower and more laborious course. He adds, that if any one expects to find in his own work a solution to the question—Whether ape or not?—he will find himself as much disappointed as he who should desire information respecting the numbers of the blessed in Paradise. On the contrary, he may find his account who shall seek a sober unvarnished description of the South African people, so far as the present state of science affords it. Several dry facts, which at present remain unclassified, will surely hereafter, when our knowledge is extended, find a fitting estimation without our being necessitated to leave the field of scientific investigation.

He next speaks of the authors he has consulted and sought to reconcile with one another. These mostly occupy the Biblical standpoint, since they are chiefly missionaries and clergymen, or others who do not maintain any independent position, but join themselves to the former, since rational philologists make on the other hand a more or less open opposition ; but the number of authors upon Africa who possess adequate acquirements in natural science is, alas ! very small, and the difficulties of understanding them are so much the greater since they possess only the slightest anatomical knowledge.

Dr. Fritsch speaks highly, and very justly too, of the labours of his renowned fellow-countryman Barth in exploring the countries south of the Sahara. His materials tend essentially to extend our knowledge of the populations of the Sudan, yet it must not be omitted that his sketches originate from the pen of a philologer, and there are many things dark which a natural-science representation would have placed in a satisfactory light.

He mentions Du Chaillu, regrets that he should have given such a romantic character to his travels, which has rendered them less worthy of confidence ; but that the great and most important portion of his sketches rest upon truth is testified by the fact that Professor Owen has been his zealous defender, and a rich collection of West African skulls (in the British Museum) has passed through the hands of Dr. Fritsch, which forms an obvious proof of Du Chaillu's activity in the said regions.

Dr. Fritsch briefly recognises other African travellers, some of whom he justly claims as his countrymen, others Englishmen ; amongst the latter he mentions Captain R. F. Burton. Of Burchell's travels he speaks in commendatory terms as containing a treasure of careful observations, so that it is to be regretted that they are not more accessible. He looks upon Burchell's work as standing in direct opposition to those of Livingstone, a man who is borne onwards by religious enthusiasm and a glowing ambition, without our being able to say which of these two levers works more powerfully in his soul. Certain it is that he endured (for Dr. Fritsch, in 1872,

spoke of Livingstone in the past tense) more labours and overcame more geographical difficulties than any other African traveller either before or after him ; yet it is also sure that, on account of the defective natural-historical education of the author, and the indiscreet partisanship for the natives against the settlers, his works have spread many false views concerning South Africa.

Dr. Fritsch divides the natives of South Africa into two great sections. The first embraces the A-BANTU, or Kaffers ; the second the KOI-KOIN, which comprehends the Hottentots and the Bushmans. A-bantu is a native term signifying "People or Men," which is rendered correct by the plural prefix A. The languages of South Africa, different from those of Europe, make the plural by *prefixes* instead of *postfixes*.

We can only in this article point out the general mode pursued by Dr. Fritsch in depicting the A-bantu, or Kaffers. In the original he enters fully, often minutely, into every element of his description, and even mentions every shade of diversity which he has observed. Dr. Fritsch's pages must be carefully studied in order to appreciate the thoroughness of his descriptions. We here purpose merely to give a sample of the mode in which his labours have been accomplished. This shall be done mainly in his own words.

The A-bantu are not strictly confined to South Africa, as some tribes ascend to the Tropic of Capricorn, and some extend even beyond the Equator. The name Kaffers, in its first form Kafirs, which is commonly used for the family of A-bantu, it is well known is of Mohammetan origin, and simply means Infidels, or unbelievers, that is, in the religion of the prophet. There is another quite distinct people who have received the same name of contempt, of course from the same source, the Mussalmans, *i. e.* the Siaposh Kafirs, of the Hindu Kush, or Kafiristan, which is to the north of Kabul, in Central Asia.

Dr. Fritsch says all the races belonging to the A-bantu are distinguished by a dark blackish skin and woolly hair, the length and quality of which varies greatly, but it is never smooth or straight. The equally variable colour of the skin goes through various shades from deep sepia to a blueish black. Pale, faint, and reddish colours are to be regarded as abnormal, although such frequently occur. The body is mostly vigorously developed ; the form of the skull is *dolichocephalic* and high, such as has been designated by Welcker *hypsistenocephalic* ;* the form of the face in the pure race is never really European, but shows a deviating type, the peculiarities of which are described in the account of the different families. Their languages belong wholly to the group of the so-called *prefix-pronominal*, and constitute the base of the same, since the group, besides the Bantu family, only embraces the much less important Mena and Gôr families.

Besides some small tribes of little importance and extent, he says there are only four in the A-bantu, *viz.* :—1. The Ama-xosa ;

* The true *hypsistenocephali*, to which this term was first applied, are to be found in the Western Pacific. *Thesaurus Craniorum*, p. 309.

2. Ama-zulu ; 3. The Be-chuana ; 4. The O va-herero. It is to a notice of the first, or Ama-xosa, to which we shall confine ourselves in this article.

The AMA-XOSA, sometimes written Amakosa. The *x* here expresses the lateral click. All the existing smaller divisions may be referred to the Ama-xosa stem. The name means "the people of Xosa," a chief supposed to have lived about the year 1530 ; others consider him merely a myth. The custom of naming a tribe from its chief is common. The Ama-xosa fall into two great groups, the "Ama-gcaleka" (*c* expresses the dental click) and the "Ama-habeba." The first still persists as an independent family ; the latter, on the contrary, is split up into a series of smaller divisions, so that the original name has disappeared. The more important of these clans are the following:—The Ama-ngqika, Imi-duschane, Ama-ndhlambe, Ama-mbalu, Ama-gwali, Imi-dange, Ama-ntinde, and Ama-gqunukwebi (*q* is the guttural click). By continuance of generations many of these families have broken into smaller ones, others have disappeared, or been reduced into remnants.

According to a capitation made about the year 1856, the whole number of the Ama-xosa then amounted to 210,000 souls, which is probably about the present population. Of these the Ama-ngqika, Imi-dange and Ama-mbalu amount to 70,000 ; the Ama-ndhlambe with the smaller subdivisions to about 55,000 ; the Ama-gqunukwebi to 15,000 ; the Ama-gcaleka 70,000. Then the Ama-tembu numbered about 90,000 souls ; the Ama-mpondo with the smaller allied families were about as strong as the Ama-ndhlambe. Since 1856 many important events have taken place likely to have influenced these numbers, among which must be mentioned the great famine of the year 1856. By this calamity the Ngqika and Tembu were much affected, the Gcaleka and Ndhlambe less, and the Mpondo scarcely at all. Whilst the first, therefore, have suffered by this unhappy occurrence, a more or less important diminution of the number of heads, and are only gradually recovering from the blow, the latter especially the Gcaleka and Mpondo are in a comparatively flourishing state, and may contain more souls than before.

The present limits of independent Kafferland are, in the south, the Kei, further inland, its confluent the Indwe, in the north-west the Kwathlamba chain, in the north-east the Umtamfuna River, and lastly in the south-east the sea.

When Dr. Fritsch comes to the section upon the external appearance of the Ama-xosa, he refers to the first description of the inhabitants of Kafferland by the rescued crew of the ship "Stavenisse" (1688), who described the Kaffers as having broader noses than are common among Europeans. This description is simple and naïve enough, but it has the merit of being uncoloured, and in the majority of cases is still applicable. He next criticises the authorities which followed. The traveller Barrow describes them "although black, or nearly so, as *not having a trace of the African Negro* in their persons. The head of a Kaffer is not long," he says, "the forehead and hindhead form nearly a semicircle, and

a line drawn from the forehead over the nose to the chin is convex, as in most Europeans. In short, had not nature endowed him with that dark-coloured principle which lies under the cuticle, the Kaffer would have ranged among the first of Europeans."

In an incomprehensible manner meritorious men like Lichtenstein, who in general was a sharp critic, held it proper to agree blindly in such points with these travellers. Lichtenstein, although he had shortly before maintained that the Kaffer was like the Negro in having prominent lips, finds Barrow's description "very correct," even to the testimony as to the colour of the skin: "this was namely rather bright than dark brown." In the rest the article proceeds in the same tone: "quite an European appearance, especially the nose; limbs show the happiest proportion; the whole external form exhibits power and spirit; women not less beautiful, very fine velvety skin, agreeable features in which gaiety and contentment are expressed, &c." In comparison with such assertions, in which one has some difficulty in conceiving that the author himself believed what he wrote, the later authorities express themselves with more circumspection, even when, like Livingstone, they openly assume a position in favour of the natives. This traveller, influenced by Biblical prejudices, holds firmly to the separation of the Kaffers from Negroes, and maintains the occurrence of European features among them: although he refrains from such sanguine expressions as those before mentioned, he calls them "splendid wild men," which every one will admit, and he has not joined in distinguishing the colour of their skins as rather bright than dark brown. Still more may we coincide in the description which a missionary, Groot, who lived fifteen years among the Zulu, gives. He designates them handsome, of good figure, most erect, but rather slender. In stature he holds them to be scarcely equal to average Englishmen and Americans, their limbs fine and well-proportioned, their whole structure calculated more for movement than for strength; the prevailing shade is a dark brown, which in their eyes is the most beautiful of all colours."*

Another author, likewise a missionary, and also under the influence of Biblical tendencies, Calderwood, is not by these prevented from remarking that the Kaffers have woolly hair, and many of them likewise the swollen lips as well as the flattened nose of Negroes: not a few of them are very dark. But, as many, according to the same testimony, have, except the woolly hair, no characteristic traits of the Negro, and are often also light-coloured, so they are tolerably, if not wholly, of Asiatic features, and he is induced to give them a middle position between the Negro and the Asiatic and Malay races.† "It is bad enough that one of the latest writers upon this subject, Wood, who names his work the *Natural History of Man*, has joined still more unreservedly in the popular song of praise. He names the Kaffers plainly 'living statues,' which every artist would choose for models in his study of classical forms. As a proof of this assertion

* *Zulu Land*, pp. 94, 95.

† *Caffres and Caffre Missions*, p. 32.

he quotes West, an American Quaker, who held the statue of the Belvedere Apollo for the representation of a Mohawk Indian.*

"There occurs among authors, even upon such an external and easily-surveyed mark as the colour of the skin, the most vexatious contradiction. That at one time the Kaffers were spoken of, at another the Zulus, contributes nothing to remove the schism, for in the most essential features both these divisions agree, and the general delineations which befit the one prevail with slight modifications among the other. For this reason it is only requisite to give the precise description of one family, and then in the following to make the differences definite wherever they deviate from that before described.

"In the present work we shall set out from the Ama-xosa, because they are very characteristic representatives of the A-bantu, for which group the following statements are sufficiently valid where a distinction is not given by the addition of a family name." In order to determine this point—the colour of the skin—Dr. Fritsch had a piece of striped paper, upon which were painted a number of different and yet approximating tones of colour in panels. This was placed directly upon the skin, and that precise tone was selected which was nearest in agreement with the skin itself. This colour of the A-bantu is No. 1 of Dr. Fritsch's table, and agrees most closely with Nos. 41 and 27 of Broca's tableau. Broca's No. 28 corresponds somewhat with the lighter variety. There also certainly occur colours which belong to another series, the middle tone of which corresponds with Dr. Fritsch's No. 2. These, nevertheless, if of regular occurrence, are by no means to be compared in frequency with the former darker colour, and amount to only a small per-centage of the population, so far as they belong to individuals in whom mixture cannot be pointed out. Whether, however, such mixture exists cannot be determined with certainty, as a mingling with Hottentots, which might lead to such shades of colour, and even with Europeans, may have happened. On the shipwreck of the "Grosvenor" on the coast of Kaffraria, 1872, many of the women passengers were taken by the Xosa as wives.

The relation of the colour of the skin to mixture of blood is very singular, so that Dr. Fritsch says it is not to be referred to any law; such persons frequently have a remarkably dark colour, which does not yield in depth to those of pure blood; further, that the later generations show an inclination to go back, so that atavism also prevails. An opinion, therefore, concerning the nature of these variations of pigmentation can only bear the character of a supposition, and might be resolved into this—that in many cases there was no mixture at all, but that bodily peculiarities occasioned a feeble development of the pigment. Among the lighter varieties of colour there is one tone very frequent, which is characterised by an obvious inclination to red, which nevertheless is very close to the specified prevalent tone. Without an energetic washing, which individuals only understand with difficulty, one can scarcely

* Wood's *Natural History of Man*, I. 12.

say certainly how much of this is natural, and how much is to be referred to the red ochre with which the Xosa and other families paint themselves. According as the painting, which is rubbed in moist over the whole skin, is more or less intensive, the skin of the individual exhibits a stronger or feebler growth of red. This paint, although the body is, after it becomes dry, further rubbed over with fat, sits only very loosely, so that the skin is soon uncoloured, and the process requires to be from time to time renewed. This process seems the more singular as many of them declare a real dark strongly-pigmented colour of skin the most beautiful of all, and use "black" as an "epitheton ornans." It appears that when the chiefs are designated in a flattering way "black" they think more of the notion of imposing, formidable, than beautiful. It is in favour of this view that they use this epithet especially in addresses, in connection with expressions such as "lion, destroyer, most mighty, &c," just as they swear in the name of the chief in connection with it.

A strong deep colour of skin is the sign of a normal sound constitution, and may therefore also, used in this point of view, be applied to a renowned person. We must keep in mind that the depth of the colouring depends on the greater or less amount of blood in the capillaries of the skin; things which change this modify indirectly the colour; therefore the Kaffer, like other A-bantu, is pale in paroxysms of alarm, terror, or in heavy sickness, *i. e.* the before dark-brown skin exhibits a dirty grayish tone, since then the pigment only tinges the blood-impooverished *cutis*.

The darker varieties of colour of the skin are not so frequent as the lighter. This especially refers to higher grades. The most intensive colours we observed came very near to black; really blue-black pigmentation, which is characteristic in certain North African tribes, was not remarked. Black individuals occur in a variable manner among the families, without our being able in South Africa to refer their appearance to any definite peculiarities of dwelling-place. In general it may be allowed that residence in a warm and at the same time moist district of country promotes the deposition of pigment in the epidermis; yet such an influence cannot be pointed out for the territories proceeding towards the tropic; whether this be possible for lands lying further north cannot here be determined. The Ama-xosa, although they dwell in a low-lying land rich in water, are on the average not darker than the tribes in the dryer interior on the borders of the Kalahari. The bodily constitution in general, as well as the condition of the skin, certainly have more control over the strength of the evolution than any local influences of any kind whatever. It would also be a difficult fact to explain, if we really assumed that the continued want of a parasol had changed a portion of our brethren into a subordinate race, whilst the parts of the body defended against insolation are not lighter than those which are exposed. Thus the arm-pits, the region of the belly, the inner surface of the thighs, &c., are not less, but mostly very strongly pigmented. The palms of the hands and soles of the feet, where a rapid wearing and reproduction of the epidermis prevails, are of a

dirty flesh tone; and the nails, under which the pigment-bearing layer is less developed, are more faintly pigmented. That the covering of the body in this race deviates in important points from that of European people, and is otherwise functioned, may be concluded from many observations, although there are no detailed investigations upon this point. Even under an African sun, in a higher temperature of the air, the skin in this race feels constantly cool; notwithstanding the dark colour, they may be exposed without injury to an insolation which would raise blisters upon Europeans; yet the people appear to stretch out in the sunshine with an especial gratification. Perspiration appears in drops upon the face only exceptionally, yet there must be a strong insensible perspiration, as a peculiar penetrating smell is manifested. This appears to depend upon a fat acid allied to butter acid, and is independent of anything connected with a want of cleanliness, for washing does not do away with the smell; rather it seems so much the stronger after washing; so also violent muscular exertion developes it.

"From these facts it is with great probability concluded that the skin in the A-bantu has the function of an organ of excretion in a higher degree than in the Indo-Germanic races, and also, in connection with this, a stronger circulation of blood takes place through the skin. This makes itself perceptible by a certain turgescence of the covering of the body, which appears to be of uncommon thickness, and in this way shows a peculiar consistence, since it yields to pressure without feeling properly soft. By reference to this circumstance we may probably explain how Lichtenstein and others came to distinguish the skin of the Xosa as "velvety," although to the notion of velvetyness there belongs a certain tenderness of the surface which is not truly proper to the cuticle of a Kaffer. How could a man have a velvety skin who exposes his body in so inconsiderate a manner to external agencies, or clothes himself with raw hides, or besmears himself with earth and fat, and then rolls himself about on the ground or in ashes? That the cutis is not of the tenderest we obviously perceive when we observe how individuals of these tribes hold their naked hands and feet in the blazing flame of a fire for such a time as would without doubt produce burns in Europeans.

"Independently of colour, the skin is distinguished from that of the non-pigmented races by a coarser texture; the furrows and grooves of the epidermis are more striking, and there are even in young individuals slight impressions over the whole body like shallow chinks, which only in advanced years pass into small folds. Frequently also, by a stronger growth of nodules and pit-like depressions between, the surface appears slightly granulated. Pock-scars, which are often observed among these races, are deeply depressed, and leave more decided traces behind than are commonly perceived even in severe cases among white people.

"Systematic tattooing is not practised, although it occurs occasionally; on the contrary, certain scars are often met with in different parts of the body, which have been taken for tattoo marks. Very frequently such marks are seen in the temporal region, or before the

ear upon the cheek-bone, in the form of a cut about two inches in length, which is drawn from before downwards. These hypertrophied cicatrices commonly exist here from scarifications, which are made in cases of sickness for local blood-letting. An operation of this kind is practised by native doctors. They are accustomed to rub into the wounds medicinal substances or ashes, which make the scar formations more obvious. Similar scarifications are performed as superstitious ceremonies upon warriors by the chief medicine man in the region of the hips; on the enchantment of this custom depends his safe return from the war. Real tattooings pencilled out in the form of lines on the breast or cheeks, or small stripes standing close together, in the form of a band round the forehead, or the neck, &c., do occur; yet as a regular practice prescribed by custom, as is observed in Central Africa, this disfigurement of the body is not found in any of the South African tribes.

"The hairing of the body is in general poor; the *lanugo*, or down of the skin is at times scarcely perceptible, so that the skin appears quite bald, and only in powerful males there is occasionally perceived on the middle of the chest single more developed hairy parts, more rarely on the belly; the extremities, the region of the shoulders, are not obviously hairy; in the arm-pits there grows merely a small patch of closer hair. The stronger developed parts of the lanugo, as well as the pubes, the beard, and the hair of the head, among all the A-bantu in a greater or lesser degree are woolly, or, better expressed, *matted together*, the "crépu" of Prunerbey. (*Mém. de la Soc. d'Anthrop.* II.) The curls of the hair are so narrow that they do not lie together in fine wavy locks, as in the wool of the sheep, but the individual hairs take a separate course, and lie together with the neighbouring hairs running the same way in irregular matted tufts. The thickness and diameter of the natural sections, or locks, is dependent on the disposition of the hair to curl, therefore varies strongly in individuals and tribes, yet the growth is never in that form in which may be observed a disposition to the formation of locks, as, for example, is perceived in the curly hair of the Jews.

"The expression 'woolly' is not quite applicable without reserve, as there is involuntarily connected with it the notion of fineness, but this not a quality of the hair of the Kaffers. On the contrary, their hairs are thick, firm, and resistant, and thus extremely dissimilar to real wool. The size, submitted to some proofs which were measured, 0.084 mm. Fingoe, and 0.062 Maaue; numbers which stand near the average of much softer hair among Europeans. The tested measurements vary much in individuals, as the transverse section forms an oval of changing breadth and regularity. The hair of the head is thick and strong, but is by no means so long in the two sexes as with us, and the general difference or divergence is less, so that in Africa the men in comparison with the women have a more vigorous growth of hair than in Europe. Nevertheless, especially in the Xosa, there was only an exceptional opportunity of settling the highest degree of possible development, as they are accustomed to

cut the hair off. As a rule it covers the head in the form of a thick cushion, in which the short tufts are only indistinctly obvious when less care has been devoted to the toilet. The artificial towers which are seen in many other tribes or families do not occur here."

We have given these passages at length as they show the conscientious exactness the author observes in all his investigations. Those that relate to the hair seem to prove that there is evinced in this cuticular appendage the same robustness of development which is seen in the skin of the Kaffer. The quality of the Kaffer's hair may be best understood by our English term *crisp*, *i. e.* curly but harsh. It is not the woolly hair of the Negro, which is rather finer and softer, but is a resistant incompressible covering, which rises up against pressure, yet is at the same time from its eccentrically oval form disposed to curl or twist about in a serpentine direction, different altogether from the European flowing curly locks. The value of the author's volume of accurate portraits is here brought out forcibly. In many of these portraits the hair of the head shows itself in more or less corkscrew locks. This corkscrew form is that into which the hair is disposed to run spontaneously, whilst the locks of the Negro are smaller, finer, shorter, and disposed to adhere very closely to the head. Some of the Ama-Zulu figured in the atlas, as well as the Maane (Be-chuana), have separate twisted locks running out to the extent of four or five inches. In "Mozissi," a Ba-Kuene, the locks are at least eight inches long. And this same form of such separate twisted locks, but not so long, is seen in the Matabele, the Ama-ngqika, Ama-mpondo, Ama-xosa, Ama-fengo (Fingoe), Bamanatishi, Ba-khatla, Ba-kalahari, &c. In the Hottentots and Bushmans the tufts are more separated or scattered over the scalp, and much shorter. There is no evident distinction in the appearance of the hair between the sexes in any of the races, such as is seen among Europeans.

The author proceeds—"The growth of the beard in the Xosa is commonly thin, it rarely reaches on the chin the length of five centimetres, or two inches; the whiskers are mostly developed only in irregular knot-like twisted tufts of short length standing separately; the moustaches commonly appear only in the region of the angles of the mouth, and are there very short. In age the hair, as well as the beard, becomes grey, yet this only happens in very late years, and rarely so completely as we commonly observe it in Europeans; that is, the hair appears mixed, grisly, not pure white. Baldness is rare, yet it occurs exceptionally."

The series of measurements which the author had opportunity to carry out yielded as an average for the stature of the grown man among the A-bantu, 171·8 centimetres, *i. e.* 5ft. 7·7in. Certainly the series included only fifty-five individuals; but in the selection physiognomy alone was considered, and the series was put together absolutely without any preoccupation in relation to growth: so the number observed corresponds tolerably accurately with the general population. Therefore, as Grout states it, the average stature does not exceed the vigorously-developed Anglo-German people, if it is

equal to it. It cannot be denied that individual families are distinguished by an especially tall stature, as, for example, the chief's family of the Ama-ngqika, in which the average stature of six grown men amounted to 183 centimetres, or 5ft. 11in., but these exceeded the greatest part of the rest of the population, in the same manner as, amongst ourselves, the descendants of individual families are distinguished by unusual stature.

"The unconstrained observer, where measurements are not taken to help him, is easily led into error by the other dimensions, in which the slenderness of the figure is to be taken into account as a very influential element. Also, purely external peculiarities: the costume of nature, the dark skin, glistening with fat, this new unaccustomed shining appearance heightens the impression upon the beholder: all these circumstances have led to exaggerations, where no purpose of the kind existed."

Some figures executed from photographs representing Kaffers of different families, given in this place by the author, may, he says, not always be conceived in the same model; still, about certain peculiarities of form there can scarcely be any discrepancy. We give Dr. Fritsch's own remarks on this subject.

"First of all, the figures appear not only slender, but, as Grout accents it, indeed too slender, which has its basis in the steep, almost perpendicular, descent of the walls of the thorax and the small projection of the hips. The shoulders are tolerably broad, but stand off inelegantly, and there thus wants that peculiar, somewhat triangular form of the trunk which is a mark of the powerfully-developed man in a European race, and which is, notwithstanding the equilateral corporeal fulness, obviously to be seen in every herculean figure. In slender persons this form fails, especially to the sight, and gives them the expression of activity combined with power which is wont to be proper to noble races. I have only exceptionally remarked these herculean figures among the A-bantu; none of the photographs I possess show such; but, indeed, Livingstone's 'representation of two young lion-hunters at the court of Mosilikatze' (especially the person standing upright, with outstretched hand) is only a new proof of the certainly notorious fact that his delineations have for their base either no original sketches or defective ones. The questionable herculean formation appearing only in the men is also to be observed in another sketch, 'Bakalahari women filling their egg-shells, &c,' in the standing female figure on the left hand; and the whole representation of the group in question is so *outré* and absurd that it does not deserve the pains to go any further with it.

"The gradual spreading-out of the trunk towards the shoulders depends conformably to nature on the diameter of the thorax, but besides upon the development of the thoracic muscles, especially the *pectoralis major* and the *latissimus dorsi*, of which the first at least on the average appears to be not so strong as in the Anglo-Germans. By this means it happens that the arm, four or five centimetres below the acromion is remarkably reduced, and the sharp and massive *biceps* seems to be set off from the *deltoid*; probably the *coraco-*

brachialis by its small development contributes to the narrowing. Whilst the upper arm in a great number of individuals may be said to be somewhat powerfully developed, the lower arms, as well as the calves in the unmixed natives, are as a rule too weak in proportion to the other muscular parts, which peculiarity is observed in other wild races.

"The thighs are, like the upper arms, more powerful; but here comes in a new characteristic, which destroys the symmetry of the body. In most individuals of this race the lower extremities stand somewhat backwards, and the pelvis appears to be more strongly inclined than in other races. The necessary consequence of such a formation is the peculiar arching of the belly, which passes through a sharp bend in the groins, and the strong projection of the nates, which also follow the back by a very deep lumbo-sacral depression. The knees appear at the same time to be somewhat set off and turned inwards, yet this is not universally the case; it fails for example in fig. 7, which represents a young man playing upon the *gubo*. This man had probably the best proportions I observed among the A-bantu, and yet we may here be convinced that the race peculiarities mentioned exist, if even in a lower degree. The steep thorax is somewhat hidden by the compression made by the arms, yet is still perceptible; the lower arms and calves are feeble; the thighs extend somewhat backwards; the breast muscles are massively developed. Such favourable proportions, such full and regularly-formed limbs, must, nevertheless, be marked as not very common."

The author then goes on to say that it was supposed that, were the natives brought under certain civilized conditions, without any mixture of blood, they might undergo great modifications even in a short time. This supposition refers to muscular development and general fulness of the limbs, which are improved by regular labour with a sufficient natural nutrition. And such has proved to be the result at Port Elizabeth, where the Kaffers have been used to bear burdens through the breakers, and where are seen the athletic forms of the Fingoes.

"The formation of the hands in the A-bantu may at once be marked as noble. These members are on the average slender, the fingers fine, tapered downwards, the nails long, narrow, which we should call among ourselves of the aristocratic type. Besides, the hands are not commonly unfittingly long, which in the otherwise small feet frequently occurs. The formation of the foot, in which the second or third toe is usually the longest, is in the rule, where they are not disproportionately long, disfigured by the exceeding projection of the heel, by which, at times, the third part of the long axis of the foot comes to lie behind the malleolus. By this means the arch of the sole is only slight, so that in walking it rests for the most part or wholly upon the ground; yet this commonly happens in races going barefoot, and cannot be accepted as characteristic. Even as little the simultaneous occurrence of a standing-out of the great toe, as shown in figure 6, although authors who have discovered that our great grandfather, the primeval ape, was possessed of a

grasping or prehensile foot, will joyfully greet such an uncontradictable case of atavism.

"What appertains to the proportion of the limbs to one another and to the entire length of the body, it is easy to make a decided assertion as we believe it should be. A general impression is by no means sufficient to establish positive assertions where such small differences are treated proportionately, whilst there underlie considerable difficulties in measuring the living. From these causes the Tables for the measurements of the living were only carried out in a limited manner in order to obtain some basis for the size of the portrait-heads taken. The short series of completely-measured individuals (6 A-bantu) afforded a length of the extremities of 47.46 (from the top of the humerus to the point of the middle finger), and 50.69 (from the tip of the trochanter major to the outer ankle), in per-centage to the length of the body."

The author next criticises the opinion of Karl Vogt, given in his "Lectures," that European races are far exceeded by Negroes in the relative length of the upper arm, by which the latter stand nearer to the primeval ape.

But we have already accomplished our object. We have given amply sufficient proofs of the conscientious fidelity of the author to nature, although we have only reached the 22nd page of his large volume of more than 500 pages. We have also proved the positions with which we set out, that a properly-accomplished traveller who will treat human races with strict faithfulness to nature constitutes the best anthropologist, and is still fervently to be desired in almost every region of the globe. What an immeasurable blessing would such a traveller prove among the still scarcely-studied tribes of Australia! Thanks to the noble labours of Dr. Fritsch, we are now able to except from this grand desideratum the region of South Africa.

J. B. D.

QUATREFAGES ON HUMAN CRANIA.*

THE first *livraison* of M. de Quatrefages's work is now before us, and, as it must inevitably form part of the library of every anthropologist of France or England, a very short notice will be necessary in this place. Probably few men enjoy greater facilities for the description of skulls than M. de Quatrefages, who for years has been the Professor of Anthropology in the highest school of the science, that of Paris, and whose ready access to the well-classified Museum of Natural History has placed him with his illustrative specimens conveniently near. The author has also had the advantages of a colleague (M. E. T. Hamy), who, as *aide-naturaliste*, has shown, in his researches on the development of the intermaxillary bone, a knowledge both precise and transcendental, and alike exact and philosophical. For the English student, following with slow and

* *Crania Ethnica. Les Crânes des races humaines.* By A. de Quatrefages and E. T. Hamy. Première Livraison, 4to, Paris, 1873.

tardy steps the course which such profound thinkers have marked out, to attempt to criticise this gigantic work, may be presumptuous, yet the devotion which even the humble learner feels towards a common science must be our excuse.

The authors commence with a description of the remains of what has been termed fossil man. With a discreet prudence they dismiss most of the dubious evidences which have been flaunted before a credulous public as "missing links," "soulless men," or forms which connected the early Westphalians with Dekhanese, Ancient Egyptians, or even Australians. Still perhaps there is a little too much said about the Neanderthal Skull, which Dr. Barnard Davis and others have long since dismissed to what has been called "the limbo of all hasty blunders," of which the date is uncertain, the pathological condition unproven, and the state of the sutures compatible with the view that early synostosis may have produced a character which, at first sight, appears to simulate the apish physiognomy of the embryo *Quadrupana*. While, however, we notice the slight waste of power which MM. Quatrefages and Hamy have employed to destroy arguments which the consentient voice of English science (at least) has long since annihilated, we must recognise the skill which has induced them to select the Canstadt Skull with its congeners at Eguisheim, Brûx, La Denise, Stœngenes, Olmo, Clichy, Maestricht, Gibraltar, Largae, La Naulette (?), Arcy, and Goyet as representations of the first fossil race of man. The only palæontological difficulty is stronger than a theoretical one. How do we know that such a jaw as that from La Naulette fitted on to a skull like that of Caustadt or Eguisheim? The type of man most aberrant from the existing forms is merely represented by one or at most two lower jaws from La Naulette and Arcy. We have no evidence that the skulls associated with such mandibles were of any particular cranial type; they may have been as hyperbrachistoccephalic as some existing Norwegians, or as hypsistenocephalic as the longest-skulled New Caledonian. Where we have not a single fact from which we can legitimately infer even a probable generalisation, silence, at least so far as regards the cranial type associated with the truly ancient lower jaws, becomes absolutely necessary. Many of the skulls of the Canstadt (*olim* "Neanderthaloid") type are of dubious antiquity, but we mean by this merely to say that, taking instance by instance, their association with the remains of extinct animals, and their consequent reference to the "post-pliocene" period (whatever that may mean) has not passed beyond conjecture in some cases and a high degree of probability in others. Was the earliest known man in Europe more apish than existing races? It may be so, but the fact is yet unproven. Was he of the same race as that which now exists in Western and Central Europe? To this question many answers may be returned. One school would say that the Neanderthal skull for instance is identical in character with many existing Celts. Reference to such skulls as those of Antrim, Louth, Gentoud, "1029 of Davis," St. Mansuy Bishop of Toul in the fourth century, Ledbury, Corcomroo,

Morrisk, Borris, Nether Urquhart (?), and perhaps a dozen others will show that the characters which in 1861 were thought to be exceptional are now known to be frequent, if not common. An investigation of these skulls, which, like those of the direct Canstadt type, are of uncertain age, but of which some have belonged to individuals who have lived within the last five hundred years, will show that the Canstadt men have existed within the historical period. Are they now extinct? Do the existing population of Kerry with a cranial index 77, or that of Munster generally with one of 76, afford any resemblance to them? In fact, have we anything more to deal with in these problems than the consideration of the Celtic race in its most primitive and debased aspects? We are inclined to reply to these questions in the negative, and our opinion is corroborated by the facts which M. Pruner Bey has placed at our disposal. Eliminating the Celts of history, the Celts of philology, and the Celts of tradition from our consideration, we have now merely to deal with the long-headed Celt of anatomy.

The second type of skull which is described by MM. de Quatrefages and Hamy is one which is not fully characterised in the present first *livraison*. The remains which have been found at Cromagnon, in Aquitaine, afforded, according to the testimony of Dr. Broca, a type of man differing in nearly every important respect from all other human types, ancient and modern. It bore no analogy to the skulls which Prof. Owen has described, from Bruniquel in the same district, and there can be no doubt that the physiognomy of both the female and male from Cromagnon must have been extraordinary. Other types exist, which are found at Lafaye, Laugerie, Solutré, Baoussé-Roussé, Montrejean, and Engis and Engihoul from the Liège Valley, which are apparently assigned by M. de Quatrefages to the present type. We must wait for the demonstration of this fact to the appearance of the second *livraison*.

C. CARTER BLAKE.

OF THE RACES WHICH HAVE STOCKED THE ANCIENT NECROPOLIS AT THE CERTOSA OF BOLOGNA, and of the Nations allied to them. A Historico-anthropological Discourse. By Professor Comm. Luigi Calori. pp. 169, with 17 plates. Folio. Bologna. 1873.*

THIS splendid volume has been printed at the cost of the municipality of the city of Bologna, in honour of the distinguished professor of anatomy at their university. Sixty-two copies only of the volume were printed, for distribution amongst the learned men of Europe.

The city of Bologna is one of the most ancient in the Italian Peninsula, and has been celebrated for many ages as a high seat of learning. It has passed through numerous phases since it was a city of the Etruscans—Felsina—and has been the habitation of many different races of men. Its ancient Necropolis at the Certosa

* Delle stirpe che ha popolata l'antica Necropoli alla Certosa di Bologna, e delle genti affini. Discorso storico-anthropologico del Prof. Comm. Luigi Calori.

is one of the most important antiquarian discoveries of recent times. The chief municipal engineer, Cav. Antonio Zannoni was commissioned to excavate it, and the collections obtained were deposited in two large halls of the Archiginnasio, where they prove a great attraction. In these halls there is a certain number of skeletons placed as they were disinterred, with their tombs, and the various objects with which they were accompanied; and in addition not a few skulls, which may be interrogated as to what race were the people who first inhabited this part of Italy. The investigation of these anatomical remains, fortunately for the objects of science, has been placed in the hands of the illustrious Professor Calori. To the great work thus entrusted to him the author has brought all the resources of knowledge, whilst his own special studies of an anatomical nature have peculiarly fitted him for this inquiry, and still more particularly so as he has for years devoted himself to the illustration of the craniology of Italy. He has not been wanting in any of the aids to be derived from the various branches of recondite learning that appertain to this vast subject, involving points of the most obscure and profound scholarship.

It is quite in agreement with the vast antiquity of Bologna and the succeeding peoples who have dwelt there that this city and its neighbourhood should be famous for its cemeteries. They occur in and about the city with remarkable frequency. There are many works written in their illustration. Besides a number of minor ones, these are not unworthy of being mentioned here. Zecche published from 1825 to 1827 his *Collection of the Sepulchral Monuments of the Cemetery of Bologna*, in four octavo volumes, containing 152 plates. That distinguished antiquary, the Count Giovanni Gozzadini, now senator of the kingdom of Italy, has discovered a series of cemeteries, and has spared neither labour nor expense in their exploration and in the publication of illustrative works. In the year 1853 an ancient Etruscan cemetery was discovered upon his estate at Villanova. In 1854 Count G. Gozzadini issued his report *di un Sepolcreto Etrusco scoperto presso Bologna*, in quarto, with eight fine plates of antiquities. Two years afterwards, in 1856, he published an appendix to this work upon the excavation of other seventy-one tombs in this Villanovan necropolis, with another plate, in quarto. Subsequently, about 1862 and 1863 the indefatigable Count began the exploration of another very extensive and ancient cemetery at Marzabotto, about twenty miles from Bologna. This also proved to be an Etruscan necropolis, was largely excavated, and there resulted a whole museum of curious and valuable antiquities from the labours. In 1865 appeared in a folio volume, with twenty lithographic plates, Count Gozzadini's report, dedicated to Victor Emanuel, the king of Italy; it is entitled *Di un antica Necropoli a Marzabotto nel Bolognese*. And in 1870 there appeared his account of further discoveries in the Marzabotto cemetery in another folio volume, with seventeen beautiful plates, some coloured, having the title *Di ulteriori scoperte nell' antica Necropoli a Marzabotto*.

In a series of introductory chapters many of the learned matters

relating to the cemetery at Certosa and the races which stocked it, the subjects we have alluded to, are submitted by Dr. Calori to an examination of the most critical character. The discovery of an Etruscan inscription in the necropolis referring to a certain "Tanaquilla," led to the view that it was the cemetery of the ancient Etruscan city of Felsina, a view strengthened by many other objects met with, and which is the conclusive opinion of Prof. Calori.

In order to give the best idea of this splendid work and that as briefly as possible, we will endeavour to state in a summary manner the general conclusions the author has arrived at from his investigations.

1. The ancient Necropolis at the Certosa of Bologna was truly that of the Etruscan city of Felsina.

2. Equally would it still continue as a Felsineo-Etruscan Necropolis after the invasion of the Boii, and till towards the sixth century of Rome.

3. Notwithstanding the presence of the Gallic Boii, there has nothing been met with in the Necropolis which would certainly indicate its having been made use of by these foreign rulers.

4. Felsina was at first an Umbrian city, then Etruscan, and its population was mixed, a compound of Umbrians, or rather of Italians properly so called, and of Etruscans, with other different nations in small numbers.

5. Who were the Umbrians or the Italians, of whom the Umbrians were a great offspring, is a point not known. They were a shoot of the Italian branch of the Italo-Greek trunk—in one word Arians; but who the Etruscans might be, considered historically as well as anthropologically, could not be declared with equal certainty. We behold them at an epoch very remote most civilized and most powerful above the other people of Italy; we see them about fourteen centuries before our era in Egypt with their army, together with the Libyans and other people of the circuit of the Mediterranean, fighting a battle upon the left shore of the Nile with Pharaoh Menepthah I., but whether they might have been Arians or Semites or a mixture of both, or of Arians and Hamites, or Hamites and Semites, or Hamitic-Semites, neither history, nor the monuments, nor anthropology hath the power to declare.

6. The Umbrian crania and the Etruscan crania are dolichocephalic and brachycephalic. The dolichocephalic are not pure but intermediate, that is to say of transition, and are more numerous than the brachycephalic. The proportion of the two types is different in the two nations; the brachycephalic are more numerous among the Umbri than among the Etruscans.

7. Although the Umbri and the Etruscans may be dolichocephalous, these nevertheless are differentiated from those by a greater cubic capacity of the skull; by a somewhat greater degree of dolichocephalism; by a lesser disproportion between the two pre-auricular and postauricular portions of the cranium; by a greater length of the face; by being more frequently prognathous; by the greater disproportion between the two frontal diameters and interzygomatic, &c.,

from which characters the true Etruscan skull expresses a well-determined type.

8. The Umbrian and Etruscan brachycephalic crania present at least differences. Those of the first, above all, could not be confounded easily with the Ligustici, but seem to belong to another race, perhaps the Illyrian, the Albanian, or the Epirotic Pelasgic.

9. The crania of the ancient Felsinean Necropolis are themselves also dolichocephalic and brachycephalic; and the first, which however are intermediate, exceed the second in almost equal proportion to that which we find among the Umbri. The dolichocephali cannot be said to be either decidedly Umbrians or decidedly Etruscans, but they participate of the qualities of both, in agreement with what we are accustomed to observe in mixed races.

10. As to the brachycephali, if by chance there was a mixture of Ligurians, they ought to be in a small proportion. The greater number of these brachycephali point to other races as well as the Umbrians, and perhaps also to different races.

11. We have no certain datum to determine whether the Gallic Boii and Lingones had a long or short skull, and, supposing that they had an influence in the modification of the Felsineans, we cannot conjecture what it might have been.

12. Finally, the Bolognese crania of the present day are, over against the ancient Felsineans, more frequently brachycephalic, and much more developed in their preauricular portion.

As we before stated, various subjects of great learning and great difficulty are thoroughly discussed in Prof. Calori's pages. The ancient Umbrians, as we mentioned, are inquired after, and the different opinions concerning their derivation examined. In this part the author concludes from their language that they were a chief branch of the Italian race properly so called. He next treats upon the primitive Etruscans, or those properly so called, and the three Etrurias; asks who were the Etruscans; whence, when, and how they came into Italy, always controverted points, which, however obscure and erudite, the author has shown himself fully able to discuss. He then inquires into the most ancient origin of the Etruscan city of Felsinea, Umbrian Felsinea, and Etruscan Felsinea. He subsequently enters upon his own proper work, viz., the indications to be obtained respecting the people interred in this Necropolis from the study of their craniology. He does not here at all overlook the researches of previous inquirers, but refers to Professor Maggiorani's Memoirs comparing the skulls of ancient Romans and those of the Etruscans; and especially to Professor Arturio Zannetti's valuable essay upon Etruscan skulls.* This portion of Calori's work is treated at great length and terminated with full tables and measurements. Then follow the general conclusions we have already given.

This magnificent volume is completed by seventeen folio plates. In these are beautifully delineated a considerable number of the skulls discovered in this very ancient cemetery, all of them of half the

* Studj sui Cranj Etruschi. Archivio di Antropologia e di Etnologia. Vol. I.

linear diameter, or quarter size. Being executed under the eye of so able an anatomist, these figures are exceedingly accurate. There are usually five, sometimes four figures on each plate, which present the skulls in different aspects. This atlas is of great value in the study of the craniology of the ancient races of Italy.

J. B. D.

PHŒNICIAN INSCRIPTIONS. By Dunbar I. Heath, M.A. 8vo. London, 1873.

THE Rev. Dunbar I. Heath publishes the first *livraison* of a large work on Phœnician Inscriptions, for which he has had the type especially cut. He alleges that the general use of the square Hebrew character and the practice of writing it in the way we call backwards are great bars to the popularisation of Semitic research. We doubt this, and think it may be argued that to write from left to right is to write backwards; and that the reverse method is the natural and easiest way of writing Oriental languages. We do not consider Mr. Heath's substituted alphabet any improvement on the usual type; it is perhaps not so easy to read. Again: if the substituted alphabet be compared with the ancient alphabets of Phœnician, Hebrew, and Greek given in *Gesenius's Lexicon*, and which we presume may be relied on, it would seem that Mr. Heath's alphabet does not agree wholly with either of the two former, and that it is really made up of all three. Indeed, some of the letters are altogether Greek. In dealing with inscriptions, what we want is a photograph, whether they are written from right to left, or left to right, or in the ancient mode called boustrophedon, and without reference to whether or not the characters are Phœnician or Hebrew. We coincide entirely with the author's views at page 100 as to vowel points, there being certainly no vowel points in use among the Hebrews at or about the time from Nehemiah to the Septuagint. The introduction of points, or rather of such a complicated system of points, has tended greatly to obscure the language. Perhaps we may say it is ten times as difficult to understand the vowel points in Hebrew as it is to master the points in Arabic.

C.

DR. D. LUBACH,* the learned author of the "*Anthropology of the Netherlands*," has recently published a memoir upon the Dutch cromlechs, which exist almost exclusively in the province of Drenthe. These primeval objects were originally more numerous, but there still remain in Drenthe 54 *Hunebedden*, for this is the designation by which they are distinguished in Holland. It is remarkable that there is only another cromlech in the country, and this is in Groningen, on the borders of Drenthe. It is probable that the Dutch name is derived from mythical Huns or giants, just as in Scandinavia *Jettegräfsvar*, and in Germany *Hünengrüber*, all meaning Giants' Graves, are applied to cromlechs, constructed of enormous stones, that

* Over de oude begraafplaatsen in Drenthe, bijzonder over de Hunebedden.

seemingly could be piled up only by men of giant power. Dr. Lubach treats ably of the construction of the Dutch cromlechs, as well as upon many other points of interest, and illustrates his memoir with numerous figures of Hunebedden, and some plans. Some of these cromlechs are formed of immense stones, like those in Wales and other parts of our islands. So little was known of the existence of megalithic monuments in the Netherlands that Dr. Lubach's memoir will be esteemed of great interest.

HINTS AND FACTS ON THE ORIGIN, CONDITION, AND DESTINY OF MAN. By Pius Melia, D.D. Second edition. 8vo. London, 1873.

DR. MELIA'S work is peculiarly interesting, although it will be probably acceptable only to the small section of anthropologists who apply the old Aristotelian method to the investigation of the mental and moral natures of man. The work, in fact, is a modern exposition of the doctrines of Thomas Aquinas to anthropological students. Into the theological parts of the argument we cannot enter, and we merely notice that a large portion of the work is devoted to the proof that it must be admitted that mankind descended from one pair, and that the first development of our speech and the first forming of our reason are simply and solely due to social teaching. The author also contends at length that the original condition of mankind was not a state of barbarism, but a state of domestic and civil life. The style of the author is peculiarly lucid, and, as his work seems to have been attacked by the reviewers of several different schools, it is undoubtedly a frank and free argument. The most amusing part is that in which Dr. Melia criticises his critics in a peculiarly humorous and caustic style. His argument may be briefly described as the opposite on all points to that of Dr. Ludwig Büchner, and anthropologists of whatever school must carefully peruse and give due weight to Dr. Melia's statements and conclusions.

TABLETS OF ANATOMY AND PHYSIOLOGY. By Thomas Cooke, F.R.C.S., Assistant Surgeon Westminster Hospital. 8vo. Longmans, 1873.

MR. COOKE is essentially a member of the French school of Anatomy, and these unpretending little tablets will place English students *en rapport* with the latest anthropotomical discoveries. Their small size may render them inconspicuous on the shelf, but they are perhaps the most practically useful little compendia we have seen. We wish that the latest anthropological discoveries could be systematised in as short and convenient a form. The description of the "fibres of Corti," on which so much stress has been laid by Mr. St. George Mivart, is especially clear. This information is not found in the ordinary text-books.

JOURNALS.

REVUE D'ANTHROPOLOGIE. Publiée sous la direction de M. Paul Broca. Paris, 1872.

WE must congratulate M. Broca and his *collaborateurs* on the establishment of this Review, which is not only by far the best anthropological journal published in Europe, but the most perfect specimen known to us of what a scientific journal should be. It is impossible that we can do justice in the space we can afford to the many valuable memoirs the first volume contains, but we will give a short notice of the most important of them given in the two earliest numbers.

The first article in the review is by the distinguished editor, M. Broca. This states the results of his "Researches on the Nasal Index," and they are both curious and important. It appears that notwithstanding individual variations the mean nasal index remains constant in the race, and it therefore constitutes a typical character of great importance. M. Broca shows (see Table) that that index gradually decreases from the first period of embryonal ossification to adult age; and from this, and from the known fact that certain characters observed in adult age among inferior races correspond to transitory states with superior races, he judges that, if the nasal index of the black races is greater than that of the white races, we may conclude that this difference is due, in whole or in part, to an analogous influence. A study of the measurements obtained from the skulls of different races led M. Broca to the opinion that it was necessary to distinguish three principal forms of the nasal aperture, characterised by a great, a middle, or a small index. The first division, including the indices above 52 (53 to 58), he terms *platyrhiniens*; the second division, including the indices between 48 and 52 (inclusive), he terms *mesorhiniens*; and the third division, the indices below 48 (47 to 42), he names *leptorhiniens*.

The first general conclusion arrived at by M. Broca is that, with a few exceptions, the most dolichocephalous races have the greatest nasal index. Further inquiry shows that the white races of Blumenbach's Caucasian type are leptorhiniens; the so-called Mongolic races are mesorhiniens; and the races of the Ethiopic type are platyrhiniens. The Caucasians are not, however, the only *leptorhiniens*. The lowest nasal index of any is that of the Esquimaux, whom M. Broca believes to be the most dolichocephalous of all races.

The *mesorhiniens* are divisible into three sections. The first includes the Lapps, the Tartars, the Calmouks, and the Chinese. The second division is that of the Malays, Polynesians, and Papous. The third embraces the American races (except the Esquimaux) both of the northern and southern continents. The *platyrhiniens* comprise all the negroid races of Africa, and also the black races of the Pacific, including the Australians, the Tasmanians, and the New Caledonians. We have not space to follow M. Broca through his inquiries as to the general influence of crossing on the nasal index,

and we must refer our readers to the memoir itself, which is deserving of careful study.

An important contribution to Anthropology is made by M. Hamy's "Researches on the proportions of the arm and of the fore-arm in different ages of life." This memoir confirms the general conclusions stated on this subject by Prof. Humphry in his Treatise on the Human Skeleton, published in 1854, that "in the first period [of life] the arm and the thigh are respectively shorter than the fore-arm and the leg. . . . During development these proportions become gradually reversed, but the definite relations between the different segments are established only after puberty." M. Hamy's researches enable him to establish the existence of a *law of growth*, and they confirm the theory of Serres that certain physical characters which are generally regarded as proper to the infant of the superior races are to be found in the negro.

The third memoir contained in the first number of the *Revue d'Anthropologie* is a "Study of the Mincopies and the Négrito race in general" by M. A. de Quatrefages. The first part of this memoir gives an exhaustive account, so far as our present knowledge extends, of the natives of the Audaman Islands, and is illustrated by a representation of a group of Mincopies after a photograph by Col. Tytler. The second part of the memoir, which is completed in No. 2 of the review, treats of the *negrito* race in general. The following are some of the general results which the distinguished author has arrived at:—

1. "Neither physically nor morally are the Mincopies nearly so degraded as would be believed according to even the most recent descriptions of them."

2. "Owing to various circumstances and to their position in an island where there is nothing to attract strangers, the Mincopies have preserved a purity of blood, which, if not absolute, is very great, and can be accepted as the type of the race to which they belong."

3. "This race, essentially characterised anatomically by shortness of the skull, externally by shortness of stature, blackness of the skin, and by hair described by the epithet *woolly*, belongs unquestionably to the negro stem."

4. "This race is distinguished very clearly both from the black African races, and from the tall, athletic, dolichocephalous negroes of Melanesia (true Papouas); it can no more be confounded with the Australian race with a dolichocephalous head and straight or only waved hair."

8. "The *Mincopie* race is found from the Andaman and Nicobar Islands to the Philippines. It formerly spread as far as the Mariannes and to Japan."

9. "This last race is still represented on the continent by the Samangs of Malacca."

10. "The same race has, according to all appearance, primitively occupied the whole or part of India."

The second number of the *Revue d'Anthropologie* contains also an elaborate memoir by Dr. Bertillon on the "Form and Size of the

various groups of New Caledonian skulls, compared with Parisian, Lapp, and Cafre skulls." The New Caledonian skulls examined by Dr. Bertillon are deposited in the Scientific Museum at Caen, and have not before been described. The measurements made by the author show that the New Caledonian type of skull is remarkable for two characters—its extreme dolichocephalism and its great height (*acrocephalism*) as compared with its breadth. It is distinguished, moreover, by extreme narrowness united with great breadth of the face. These two characteristics Dr. Bertillon thinks are the consequence one of the other. The flattening of the lateral parts of the skull does not exist in the skulls of infants, and it appears to be proportional to the development of the temporal muscles. Dr. Bertillon thus supposes that the flattening is due to the compression exerted by the action of the muscles, partly when at rest, but chiefly in the labour of mastication. This memoir is followed by an article on "the Fossil Man of Denise" by Dr. H. E. Sauvage, who accepts the skull found in the volcano of the Velay as belonging to the same palæontological dolichocephalic race as that represented by the skulls of Neanderthal, Eguisheim, and Canstadt.

In addition to the original articles of which an account has been given above, the *Revue d'Anthropologie* contains important critical reviews, notices of books and journals, and miscellaneous information, besides a very complete bibliographical summary and tables compiled by Dr. Dureau.

ZEITSCHRIFT FÜR ETHNOLOGIE. Organ der Berliner Gesellschaft für Anthropologie, Ethnologie, und Urgeschichte. 1873.

THE first number for the present year of this valuable journal contains, besides its miscellaneous matter, the following articles:—"The People of Monbuttu in Central Africa," by Dr. George Schweinfurth; "Contribution to Anatomical Anthropology," by Dr. Paul Langerhans; "On Dutch Antiquities," by E. Friedel (illustrated by a plate of stone implements); "Space and Time" by an anonymous writer; "Contribution to the knowledge of the so-called Anthropomorphous Apes," by Dr. Carl Nissle; and a note explanatory of a fine Plate, after photographs, of Nubian Berâbra. The article of Dr. Nissle, which describes the habits of a young Orang-Utan, forms a fitting supplement to the account of the Chimpanzee, Molly, which appeared in the fourth part of the Zeitschrift for 1872. Herr Friedel's paper contains a series of measurements (made according to a system of his own), twenty in number, of the head and face of thirteen individuals, of whom three are Kurdish cattle dealers, six are Armenians, and four are negroes from Darfur. The article is illustrated by four excellent plates of portraits, from photographs which were taken at Jerusalem. The *pièce de résistance*, however, is Dr. Schweinfurth's memoir on the *Monbuttu* of Central Africa. This people occupies a tract of level country, 250 square miles in extent, situate between 3° and 4° north latitude, and 28° and 29° east longitude from Greenwich. The country is very densely populated, containing

upwards of a million inhabitants. Towards the North and North-West the land of the *Niam-Niam* forms the boundary of the Monbuttu territory, and in the South it is surrounded in a wide semicircle by a number of peoples of the negro type, classed together by the Monbuttu as *Momvu*. The language of these peoples appears to be allied to that of the *Babuckr*, who are found east of the *Niam-Niam*.

The Monbuttu are described as being distinguished from all other known peoples of Central Africa by their clearer complexion, which is the colour of ground coffee. From the *Niam-Niam* they are distinguished also by a more muscular development of the limbs, and a more abundant growth of hair on the head, and of the beard. At least five per cent. of the Monbuttu have hair of a light colour, and these have also the fine crisped woolly hair of the negro, and a lighter complexion than their countrymen. In physiognomy the Monbuttu reminded the traveller of the typical character of the Semitic race, particularly in the formation of the nose, which frequently by its greater length differed strikingly from the form usual among the negro race. Dr. Schweinfurth sees in these race-marks evidence of a relationship with the great family of peoples grouped together as Fulbe, whom Barth considers as connecting the Arabs and Berbers on the one side, and the Berbers and negroes on the other. The language of the Monbuttu appears to belong to the Nubia-Lybian family.

The Monbuttu differ from their neighbours as much in their habits as in their appearance. The men clothe themselves with large pieces of the bark of a fig-tree, whilst the women go almost naked. The hair is worn by both sexes formed into a long cylindrical chignon. Tattooing is customary in the form of figures, running band-like over the breast and back. It appears to be used as distinguishing marks for individuals, and it presents an inexhaustible variety of patterns. The only interference with nature which the Monbuttu allow is ear-boring, and this custom has led the ivory merchants of Chartoum to call them *Guru-Guru* (from *Gurgur*, to perforate) to distinguish them from the "*Niam-Niam*," this name being a collective title applied by the Sudanese to all cannibals.

As to their civilization, Dr. Schweinfurth declares that the Monbuttu have, without any Mohammedan or Christian influence, reached in external culture the highest degree which is attainable in that part of the world; and he thinks that they belong to a group of peoples dwelling in the very centre of Africa, who are as yet almost unknown. They excel all other peoples met with by Dr. Schweinfurth in smith-work, and also in every other branch of their trade activity, not excepting the Mohammedan peoples of Northern Africa.

It is remarkable that the Monbuttu are perfect strangers to cattle-breeding, and they have no domestic animals except the small *Niam-Niam* dog and the fowl. In their war expeditions against the peoples to the south of their territory, they seize great multitudes of goats, but they do not breed these animals. The chase provides them with the necessary flesh food, and they prefer for that purpose elephants, buffaloes, wild swine, and antelopes. There is no want of

animal food, and the cannibalism in which the Monbuttu surpass all other known African peoples cannot thus be accounted for. The human beings whose flesh is required to gratify that propensity are obtained by war and raids on neighbouring less civilized peoples. The flesh which is acquired by war is divided on the field of battle, and dried for home consumption. The living captives are driven before their conquerors like a flock of sheep, to be used for food as occasion requires. Children are reserved as delicate morsels for the kitchen of the king. Dr. Schweinfurth refers to the skulls which he has presented to the Anatomical Museum of Berlin, which were derived from the remains of cannibal repasts, in proof of the truth of his statements, and he adds that the cannibalism of the Monbuttu is without a rival in the whole world. And yet he describes this people as being a noble race of men, endowed in a higher degree with understanding and reason than any of the inhabitants of the African wilderness, and as being praised by the Nubians for their reliability in friendly intercourse, and for the order and safety which is supplied by their political government.

Of the second part of the *Zeitschrift für Ethnologie*, thirty pages are occupied by a notice of Mr. Tylor's *Primitive Culture*. The other articles of general interest are a letter from Dr. Reichenow to Prof. Bastian, describing the social life of the natives of Accra, on the Gold Coast; a reply by Gustav Fritsch to a criticism in the *Göttingen Gelehrter Anzeigen* of his fine work on the natives of South Africa; and the "Peoples of South Arabia," by Baron v. Maltzan. The last-named paper was read before the Berlin Anthropological Society, and we are sorry that the space at our command will allow us only to give a few extracts from it. Baron v. Maltzan says that the inhabitants of South Arabia, whom he distinguishes from the people of Northern and Central Arabia, consist of two distinct races, the Sabeans and the Himyarites. The Sabeans occupy now, as formerly, the greater part of Yemen, that is the north and centre. The Himyarites are spread from the Straits of Bâb el Mandeb in the west and the Wâdi Maifat in the east, and as far north as the 15th degree of latitude. The chief physical distinction between the Sabeans and the Himyarites is the colour of the skin. The Sabeans are clear-skinned, yellowish, much more so sometimes than the Central Arabians. The Himyarites are, on the contrary, very dark, almost black. This is a peculiar black, which sometimes has the red-brown reflection seen among the Abyssinians and Gallas, but which is usually of a dull smoky hue.

The other physical points of difference between the Sabeans and the Himyarites are, says the author, visible at a glance. "The face of the Sabean presents a long oval; that of the Himyarite is more pointed, like the section of a cone. The Sabean is usually tall, stout, and big-boned; the Himyarite small, delicate, of extraordinary fineness and even delicacy of structure. The force of the one lies in the bones and muscles, that of the other in the nerves. The Sabean is massive, almost plump, and unwieldy; the Himyarite of a serpent-like suppleness, which often put me in astonishment. The

feet and hands of the Sabean are stout and large, those of the Himyarite fine and elegant, almost like child's hands." After referring to the fact that there are few very fat or very thin people among the Himyarites, but the reverse among the Sabeans, Baron v. Maltzan continues—"Wonderfully fine, in general, are the features of the Himyarites. The nose is usually slightly arched, approaching the aquiline form, but always small, and above all elegant. So, also, the mouth; the lips are small and fine; the eyes large, always black, shaded with thick eyebrows. The Sabean, on the other hand, has strongly-marked features, a large nose, often boldly arched, sometimes straight, and always very long; stout chin, large mouth and ears. The hair of the Himyarite is long, but very crisp, almost woolly, always black. It cannot be worn in long lank locks, as we see it among the Bedouins of Central Arabia, for which it is much too short. The Sabean, on the other hand, has much smooth hair, which distinguishes him from the other Semites, *e.g.* the Jews. Both of them have very little beard, but the Himyarite has less than the Sabean. Whiskers are extremely rare. Usually a little wool only grows on the chin and upper lip. That on the latter is removed; it is unclean. Nevertheless I occasionally saw among the mountain people of Yafi'a a somewhat stronger beard."

Baron v. Maltzan refers to the existence among the Himyarites of families in which the possession of six fingers on the hand is hereditary. The sixth finger is considered by the people as a sign of blue blood. The observations of the traveller on this curious subject are deserving of translation, but we have not space for further details.

MATÉRIAUX POUR L'HISTOIRE PRIMITIVE ET NATURELLE DE L'HOMME.*

We have received several numbers of this excellent publication. They are as usual so full of interesting matter that we could wish to reproduce the whole for the benefit of our readers; as this, however, is obviously impossible, we content ourselves with giving a few of the conclusions arrived at.

The Viscount Lepic and M. Jules de Lubac have been exploring in the valley of the Rhone; at a pre-historic station called the Cave of Nero they find the usual quaternary remains, and amongst them part of the lower jaw of a dog, which M. de Mortillet pronounces to be that of the domestic dog which was not then domesticated. They also found that bones broken by human hands had been gnawed by hyenas, and were associated in the Cave of Nero with coprolites of those animals, from which they draw the conclusion that the cave was not always regularly inhabited by man. Of another cavern called the "Caverne des Enfants" they say—"There is an accumulation of bones of children of all ages, from the infant at the breast to the adult, and bones which may have belonged to women; man,

* Edited by MM. Trutat and Carthailhae, Musée d'Histoire Naturelle, Toulouse.

strong and vigorous does not appear to be represented there. Of what forgotten drama were these places the witnesses? Whence comes this immolation of women and children? From human sacrifices, or from some bloody episode in tribal warfare?"

A full report is given of the proceedings of the Anthropological section of the French Association for the Advancement of Science, at the meeting held at Bordeaux, concerning which we can only afford space for a few notes. M. de Mortillet proposes to divide the so-called palæolithic period into two—1. For chipped flint and bone weapons coinciding with the reindeer period, of which Les Eyzies would afford an example; 2. For chipped flint implements only, subdivided into three epochs. Dr. Prunières exposed the discovery of another pilework "mares'-nest," this time in the Lake of St. Andéol, where the remains of the habitations of some *beavers* (for some time extinct in that neighbourhood) had been taken for a lake dwelling, the error having been fortified by legends of a city sunken in the lake, &c. This gentleman also exhibited a lance-point made by *chipping* a polished stone axe to the required shape, the weapon being thus chipped on one side and polished on the other. He also read an important paper on the Troglodytes of Lozère and the sepulchral cavern of "L'Homme Mort," the most recent interments in which were, he considered, at least as old as the oldest dolmens; the remains were more dolichocephalic than any in France, while the present population of the district is extremely brachycephalic. M. Elie Massénat, one of the most experienced explorers in France, expressed in the discussion which followed a doubt whether all the so-called sepulchres were sepulchres, and whether the men of the reindeer period buried their dead at all or did not rather leave them to be eaten by wild beasts—perhaps by themselves. Dr. Broca considered that the dolmen-builders in Lozère were preceded by a race of troglodytes. Dr. Prunières showed that all the dolmens in that district were concentrated in a few cantons in the south-west of the department extending towards those of Aveyron, being the calcareous part of the department as opposed to the granitic, and suggested that this might be due to the Causses being little better than deserts when the dolmen-builders, a race possessing superior civilization, entered Lozère from Aveyron and the Gard; he had found upwards of 200 dolmens, one of which had contained at least 62 bodies. The dolmen-builders were acquainted with corn, and the objects found with them proved considerable civilization. M. Cartailhac thought the dolmen-builders more warlike, but not on the whole more civilized than the people which they supplanted. The section terminated its labours by an excursion to the camp of Cambo, Basses Pyrénées, which was decided to belong to the period when the Euskarians and Iberians or Euskarians and Celts lived in perpetual hostility (about the 15th century B.C.), and to have been, not really a camp, but a series of works intended to protect a retreat into Spain from northern invasions. The Basque or Euskarian race was found by the section to be principally dark brown, some individuals being, however, lighter and some few fair.

A full report is also given of the proceedings of the International Congress of Anthropology and Prehistoric Archaeology at Brussels. General Faidherbe read a paper on the dolmens of Algeria, which he attributed to a tall dolichocephalic race coming from the north, which also built those in Europe, starting from the Baltic, and now represented by the fair Berbers and by the Masas, a light dynasty now ruling over the Bambaras, a black tribe on the banks of the Niger. M. Worsaae could not attribute all the dolmens of Europe and Africa to the same people or to the same period. M. Desor thought it more likely that the dolmen-builders started from the south and went towards the north. There would seem to be as great differences of opinion on anthropological topics on the Continent as in England, M. Ribero having brought some (as he said) worked stones from tertiary deposits in Portugal, in which the Abbé Bourgeois and others saw no trace of human workmanship; and M. Soreil asserting the Caverne de Chauvaux to be a sepulchre of the polished stone period, in opposition to M. Spring, who had alleged it to be a resort of a cannibal tribe. M. Soreil had, however, discovered some *whole* skeletons in the cavern, which seemed to settle the question in his favour. M. Lagneau contravened the opinion expressed by Dr. Pruner Bey that the Belgian Cave men were of a Mongolic race. Dr. Hamy attributed the early inhabitants of Belgium to an Australioid race, and maintained that that race was not yet extinct. M. Virchow agreed with M. Lagneau, and recommended caution in forming adverse judgment as to the capacity of ancient skulls, two having lately been received at Berlin, which, if found in a prehistoric station, would have been considered of an exceedingly low type, but which belonged to wealthy Athenians of about the 4th century B.C. M. Virchow raised a discussion on human remains found at Furfooz, in which M. Quatrefages took part, and also *Madame* Clémence Royer, who advocated the European origin of the fair white races, and considered that the brown dark-eyed Europeans had come from the East, by the South, at a later period, bringing a new civilization with them. The Abbé Bourgeois presented some flints which were a source of great trouble to the Congress: when such authorities as Worsaae, Vibraye, Franks, Steenstrup, Quatrefages, Cartailhac, Virchow, &c., differ, the specimens must be rather doubtful. Professor Nilsson seems to adhere to the Phœnician origin of bronze, and is supported by observations made in Greece by M. F. Lenormant. M. Cazalis de Fondouce described some curious sepulchres near Arles, where masses of limestone rise up in the midst of the marshes, in which galleries and chambers have been dug like trenches, some to the extent of 45 metres, and then covered in with slabs of stone and a tumulus raised over them, the whole structure resembling practically the great chambered tumuli of Brittany, &c. Bronze and pottery were found in them with human remains.

THE "GLOBUS."

THIS weekly Journal of Geography and Anthropology, published at Brunswick, is of much the same character as the English "Illustrated Travels," but of a more scientific aim. The twenty-third volume, which is for the first six months of the present year, contains many interesting articles, and several of real scientific value. Among the latter are those on the Niamniam, by Dr. George Schweinfurth, which are illustrated by a map of the Bachr-El-Ghasal region, and portraits of Niamniam; the articles by Julien Biau on the Expedition of the frigate "La Flore" in 1872 to Easter Island, accompanied by representations of the famous colossal idols (so called); "Sketches from Senegambia," which are profusely illustrated, evidently from photographs; F. Jagor's "Travels in the Philippine Islands;" several articles on the Lapps; and Wereschagin's Journey from Orenburg to Samarkand. The last-named articles (two in number) are excellently illustrated with portraits of natives and representations of Kirghise and Turkoman buildings. Although not within the scope of Anthropology, we must also refer to the articles on "Spectrum Analysis," with the two beautifully coloured plates showing various spectra. The present volume of "Globus" contains several well-illustrated papers by Wereschagin on Tashkend and its inhabitants.

SCIENTIFIC SOCIETIES.

THE BERLIN SOCIETY FOR ANTHROPOLOGY, ETHNOLOGY, AND ARCHÆOLOGY.

THE fourth yearly session of this society was opened on the 11th January last by a short address from the Chairman, Herr Bastian, after which several communications, one relating to "A Tool from the Diluvium of Wrietzen," another to "An ancient Sculptured Stone from Ellernitz (West Prussia)," were read. It was announced that the Minister of Trade and Public Works had issued a circular to the District Governments directing that notice of any old stone monuments, pile-buildings, graves, or other prehistoric "finds" should be given to the nearest member of the commission for the purpose appointed by the Berlin Anthropological Society, and that aid should be given for the preservation of any such antiquity. Herr Meitzen addressed the society on "The Silesian Preseka (Forest-fortifications) of the Middle Ages." Herr v. Martens read an extract from Prof. Strobel's paper on "The *Unio* shells in the Pile-dwellings of Upper Italy and in the Patagonian Paraderos;" and Herr E. Friedel made some remarks on "The Use in North Germany of Freshwater Molluscs as Food for Swine."

At the Meeting of the 25th January last Herr v. Meyer read a very interesting paper on the origin of the preference given to the right hand over the left. This, the author asserted, had a religio-cosmical origin, and he connected it with the rising and setting of

the sun. The reasons for the universality of the superiority of the right hand over the left are thus summarized:—

1. The higher religious significance of the East side and direction.

2. The higher antiquity as well as the wider extension of the great Asiatic East-praying race, of whom the Egyptians represent (as otherwise shown) only a later branching off.

3. The fact that even with the peoples to whom the second prayer direction (South and North, as distinguished from the East and West), was usual, as with the Romans, Greeks, and Germans, many traces have been preserved in language and customs of the first, older, direction.

In the course of the discussion which followed this paper, Herr Virchow referred the preference of the right over the left to a physiological origin.

At the same Meeting Freiherr v. Richthofen read a paper on "The Cause of the Uniformity of the Chinese Race-type, and of its Local Exceptions," of which we hope an abstract will appear in an early number of this Journal

THE EAST YORKSHIRE ANTHROPOLOGICAL SOCIETY.

At a meeting of the Berlin Anthropological Society, held on the 14th December, 1872, a paper entitled "Old Shell Graves in the neighbourhood of Hull," by Mr. Walter Kauffmann, was read. The following is a translation of the paper:—"I have been fortunate enough to meet with graves in the neighbourhood of Hull belonging apparently to the period of transition from the stone age to the bronze age. The incessant rainy weather, however, prevented me carrying my excavations any further. The whole country about Hull is very low and flat, only single trees intersperse occasionally the monotonous landscape. About four miles to the north-east of Hull, in the Holderness district, there is a place known as *Castle Hill*, which, as the name implies, is elevated above the surrounding plain. According to popular belief it was formerly a Roman encampment, but nothing is certain as to this. The place is from 260 to 300 feet in circumference, and is elevated some ten or fifteen feet above the plain; it is overgrown by splendid old trees, principally beech. When I visited this place for the first time I found the hill dug into from the westward, earth having been removed from it, probably for building purposes. Examining this part more closely I found a piece of an earthenware vessel, a few closely-packed oyster-shells (being undoubtedly put together by human hands), chips of flint, and a human rib. A terrible thunderstorm prevented me from continuing my excavations at that time. Going out a second time, I found not only the vertebræ and other bones of this skeleton, but also, at about two and a half feet distance from it, a second skeleton. Both these skeletons were found lying about four or four and a half feet under the surface, but by moving the earth the bones of the feet, as well as the upper and lower leg-bones, were lost. Digging

further about the last-found skeleton, I found all the vertebræ together in proper order; two of them were split (which I think very remarkable), apparently with a sharp instrument, not vertically, but obliquely. From the position of these bones there appears to be no doubt that they were split before the burial, for the layers of earth above the skeletons are unmoved. The accumulation of oyster-shells round about the body appeared to me very remarkable, and I could not help imagining that perhaps these people had used oyster-shells as a sort of coffin (the same as we find in our country stone boxes for the protection of urns and skeletons), for these oyster-shells form a solid, nearly circular wall around the skeleton, very difficult to dig through. Or would the oysters be given to the dead for food on their journey? I should be very glad to receive some explanation about this from you, for in this place there are no books obtainable about these matters, nor does any one take any interest in this science. I have already reached the third cervical vertebra, and am in hopes, by digging further, to find also the skull. Inside the oyster wall I found in the earth many chips of flint, and especially two larger elaborate stones, of which I think one is a chisel and the other a hammer. Just outside the oyster wall I found a single piece of bronze resembling a nail-head, with a piece of the nail, about three-quarters of an inch long; the nail had a pretty well wrought head, of mushroom form. I also found a few bones of rabbits and a wing-bone of a bird of the size of a pigeon. The direction of the skeleton is from west to east, the same as with us, the skull to the eastward. The bones are comparatively very heavy and large." After the reading of the paper, Herr Virchow stated that no shell grave had to his knowledge as yet been found. Although what had been described would remind one faintly of the shell mounds of Brazil, which were spoken of at the meeting of the 10th February, 1872, yet it would be impossible to found a real comparison of the two upon these facts.

This paper having been brought before the East Yorkshire Anthropological Society, which is established at Hull under the presidency of Dr. Kelburne King, a committee was appointed to investigate the locality referred to and the supposed unique discovery there made. The following is the report of the committee, which was prepared by Mr. Walton, V.P. :—"After several preliminary visits by individual members, the entire committee, consisting of Messrs. Walton, Evans, Harrison, Mortimer, Stephenson, and Wake, proceeded to Castle Hill, on Tuesday, the 20th May last. Castle Hill is a slight eminence E.N.E. of Sutton, and consists of a marine deposit of sand and gravel. In this respect it seems to be part of a series of sand and gravel deposits which bisect the alluvial clay of Holderness, extending from the Barf Hills, near Brandesburton, to Paghill (or Paull) and Kelsey Hill—nearly a meridional line. It is natural to suppose that an elevation of this kind would be employed at different times for military purposes, and a great many opinions have been hazarded in this direction. The Yorkshire Archæological Society, some years ago, held that there was sufficient evidence to

show that Castle Hill had been used as an ancient British fort. Others have supposed that Castle Hill was a Roman camp. In this respect there can, I think, be no doubt that they were entirely wrong, as the known system of castrametation of the Romans always points to square or oblong redoubts, whereas Castle Hill is circular. Other archæologists have maintained, and with a fair show of probability, that the old castle of Branceholme stood here. Mr. Mortimer seems to share in this opinion. A measurement of the circumference of the elevation shows it to be 1100 feet round. The surface of the hill is covered with trees, principally elm, mixed with about a dozen beeches. One of these, the same size as the rest, was found laid on the ground, and on its cut surface seventy rings were counted. The trees are all small, and none of them older than a century. The result of digging for two hours at the spot referred to by Mr. Kauffman was that several bullock, pig, and hare bones, with oyster-shells, some of them unopened, were turned out. There was no trace whatever of human bones, implements, or human work, or other indication of man's presence. The unanimous opinion of the committee is well expressed in the following extract from a letter of Mr. Mortimer to myself, dated June 1, 1873. Speaking of Castle Hill, he says—"My opinion is that the place excavated and described by Mr. Kauffmann, and afterwards re-examined by several members of your society, including myself, was not a place of sepulture, and that it never contained any human remains. In my humble opinion it has been nothing more than a shallow pit (probably situated in some portion of the old castle yard), where from time to time wood, ashes, bones, and other refuse were cast. This supposition would seem to be borne out by the fact that the bones were detached, and in several cases broken, and were distributed in the soil; also that they consisted of the ribs of an ox, vertebræ, under jaw, and the greater part of the femur of the pig, femur of the hare; and I noticed half of the pelvis of a fowl. Those are just the animals we should expect to find in a kitchen midden." Again, in the same letter, Mr. Mortimer, speaking of Mr. Kauffmann, says—"I am inclined to think he has mistaken some vertebræ and leg-bones of the pig for human; and that what he describes as stone tools are only water-worn boulders somewhat resembling implements." With the opinions thus expressed the committee entirely coincide.

NOTES.

ONE of our cheapest periodicals is certainly "Illustrated Travels," published by Messrs. Cassell, Petter, & Galpin. The illustrations especially are as a rule most excellent, particularly those of anthropological subjects, although many relating to America are somewhat puzzling. Thus, of the illustrations to *A Ride round the Valley of Mexico*, those entitled "From the Tierra Caliente," "A Devout Native," and "Carousing in the Cloister," are also given (under

other designations) in Paul Marcoy's remarkable work, *Voyage à travers l'Amérique du Sud*. The same must be said of "The Mura Snuff-takers," "Zummate Indians," and "Zummate Indians of the Upper Trombetas," which illustrate the paper entitled *A Trip up the Trombetas*. It is somewhat strange to recognise in "One of our Captors" (see the article headed *Captured by the Honduras Indians*) Marcoy's "Type d'Indien Schétibo" (vol. I. p. 69); in "One of our Guards," the same writer's "Type d'Indien Amahuaca" (vol. II. p. 178); and in "The Indian Chief," Marcoy's "Type d'Indien Chacaya" (vol. II. p. 179). Which is correct?

Mr. A. F. JONES, F.L.A.S., residing at Rio Janeiro, has just informed us of the alleged discovery of a Phœnician inscription near the Rio S. Francisco do Norte, commemorating the landing of a crew there three or four centuries B.C. All the particulars which he has collected or may be able to collect in the interval concerning this interesting discovery will be laid before the first meeting of the Society in November next.

Human Remains in Irish Bogs.—We recently called attention to a somewhat curious discovery of human remains in an Irish peat-bog near Omagh. A similar discovery was made during the present month in a moss near the village of Derock, county Antrim, the particulars of which have been kindly furnished us by Dr. Thompson, a physician resident in the neighbourhood, accompanied by a rough sketch of the remains taken on the ground by Mr. W. G. Hodson, B.A. T.C.D. It appears that whilst some men were engaged in "cleaning down" the face of a turf bank the spade came into contact with what proved to be the top of a human skull. On further examination the whole body—or rather the skin and animal substance of the bones—of a woman was discovered. The integument was thoroughly tanned and in a perfect state of preservation, save at the hands and head, where it had been injured during the disinterment. The remains were at a depth of about ten feet below the surface; the body occupied a crouched position, the elbows and knees being drawn closely up towards each other, and the head bent forwards. Some shreds of sackcloth were found about different parts of the body. It is an interesting fact in connection with the remains that the bones are said to have lost all their solidity, and in many places, such as the shafts of the long bones, had disappeared altogether. They were more perfect in form in the cranium and face, and about the spongy ends of the long bones, and in the neighbourhood of joints. Everywhere the bones were soft and compressible, but least so in the carpal and metacarpal regions, and in the ankle-joint. Several of the teeth were also found *in situ*, but crumbled on being taken up. The integuments of the face were quite perfect, as were the ears, tongue, and pharynx. The tendons about some of the joints, and especially at the wrist and arch of the foot, were perfectly visible through the skin. In its present shrunken state the body measures five feet one inch in length. The preserva-

tive action of bog is well known, but we are not aware that it contains anything capable of exerting a solvent effect on the mineral constituents of bone, although from the description it would almost appear as if this portion of the bone had been removed, leaving the flexible animal portion, in a way similar to that which can be easily effected by steeping bone in some dilute acid capable of dissolving away the phosphate of lime and earthy salts. The skin and tendinous structures would be preserved by the antiseptic action of peat, and this probably accounts for the resistance of the bony structures in their vicinity. These discoveries may merit the attention of men like the Rev. Mr. Greenwell, of Durham.—*The Lancet*.

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ANTHROPOLOGIA.

Proceedings of the London Anthropological Society.*

SPECIAL MEETING.

*Held at the Scottish Corporation Hall, Crane Court, Fleet Street,
London, on Friday, 6th June, 1873.*

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

Elections announced :—

Fellows, J. E. BAUGH, Esq. ; J. KESSON, Esq. ; A. H. KIEHL, Esq.

The Honorary Secretary read the following paper :—

THE NATIVES OF NEW GUINEA AND OF THE NEIGHBOURING ISLANDS.

BY A. H. KIEHL, F.L.A.S.

I AM going to describe a race of men which may well be called the negroes of Polynesia, because of their resemblance, in many respects, to the African negro.

In trying to do so, I must ask your indulgence because of the incompleteness of my information. Had I known at the time I first became acquainted with some of the natives that I should become a member of this Society, I would have taken more notice of their features for instance; as it is, I shall tell you all I know about them, hoping some one better informed may set me right, or will give us more detailed information. I have been obliged to prepare a map of the countries I am going to speak about, as no trustworthy map of them was obtainable. This map makes no pretence at accuracy, beyond giving correctly the relative positions of the different islands.

* The Council desires it to be understood that, in publishing the papers read before the Society, and the discussions thereon, it accepts no responsibility for any of the statements or opinions contained therein.

The largest of the Polynesian Islands no doubt owes its name of New Guinea to the resemblance of its natives to those of the Coast of Guinea in Africa. This island occupies, as it were, a central position among the many others inhabited by this race and its numerous branches.

The negro-like people are found as far north as the Philippines, where the Island of Negros (10° lat. N. and 123° long. E.) is called after them; as far west as the N.W. coast of the Australian continent, and as far south and east as the New Hebrides (20° lat. S. and 170° long. E.), but along the outskirts of this region, especially in the extreme south and east, an admixture of foreign blood among them is clearly traceable, the colour of the skin becoming lighter, the hair less crisp and woolly, and the stature different and in some parts taller as you approach these extremities. I have seen these natives on the Island of Gebi (Gilolo Passage)—whither they are brought by the Malay proas of the island, not without some suspicion existing about the manner in which they are sometimes obtained—on the coast of Mysori, an island fronting the Great or Geelvink Bay, where they came off to our vessel with anything but the best intentions, and on the Stewart's Islands, a group of small islands situated to the eastward of Malayta, one of the Solomon Islands. But my own information being too incomplete, I shall merely use it to supplement the observations of others, such as Captain Hunter, Commander Erskine, R.N., Owen Stanley, and others. Let it also be understood that my very latest date is 1862, since which time much may have altered, and, I sincerely hope, altered for the better.

I intend only to speak of the natives of New Guinea and the islands that surround it; such as Misori, the Admiralty Islands, New Britain and Ireland, the Louisiade and Brumer Islands; of the Solomon Islands, of the Santa Cruz Islands, and of the New Hebrides, although this race is found on many others, but about whom I have no reliable information.

Name.—The name by which these natives are known—that of Papuas—is the name they themselves give to New Guinea. This island extends from near the equator to the 10th degree of S. latitude, and from the 132nd to the 151st degree of E. longitude, and its western half, which is tributary to the Sultan of Tidore, belongs to the Dutch. As yet no European settlement exists, to my knowledge, on any part of New Guinea; the only Europeans living there being two or three German missionaries with their families, who lived on the little island of Mansinam, opposite the harbour of Dorei, on the north coast of New Guinea, and occasionally went across to the mainland to instruct the natives as far as their knowledge of the language would allow. They often suffered great privations, owing partly to the little schooner that used to bring their supplies staying away for a considerable time, during which the want of sugar and other commodities Europeans cannot very well do without, was often keenly felt, especially by the females; and partly to the dreadful marsh fever, which affected them to such a degree that one of

them, in a letter to his friends at Batavia, expressed his conviction that he must soon die, if not by the fever itself, then certainly by the amount of quinine necessary to counteract it. These missionaries gave very hopeful accounts of the people in the neighbourhood of Dorei, but very bad reports about the islands to the eastward, notably Mysori, where they said they were all cannibals.

Colour.—The colour of the Papuas varies from a deep black, like that of the African negro, to a copper complexion of a darker or lighter shade. But for all this difference in colour there is a marked resemblance between them, both in their general features and in their manners and customs.

Those that are found at Geby, Waigiou, and the north and west coast of New Guinea, at Mysori, New Ireland and the westernmost Solomon Islands, are quite black; on the Admiralty Islands, the eastern Solomon Islands, and the New Hebrides, they are of a dark chocolate colour; whilst the skin is more or less dark copper-coloured on the south-east coast of New Guinea, the Louisiade and Brumer Islands, and on the Lord Howe and Stewart's Islands.

Size.—Wherever the race appears less mixed, the stature of the Papuas is rather below the middle size, the upper part of the body being well proportioned, but the legs short and ugly, and standing—at least at New Ireland—in the middle of the foot, causing the heel to project a good deal behind. Wherever the lighter complexion and the less crispy hair bespeak the admixture of foreign blood—be it Malay or Polynesian—the stature becomes higher, and the people better formed, stronger, and healthier. At the Lord Howe and Stewart's Islands, the natives are decidedly taller and much stronger than the average European, and resemble the African negro in all but his colour.

Features.—Their mouths are large and their lips thick. The noses also are thick and large, but probably less so from nature than by artificial means, as many distend their noses and ears by the introduction of earrings and nose-sticks of an enormous size. In 1840 Sir Edward Belcher purchased a nose-stick of bamboo from a native on the north coast of New Guinea, which was five inches long, and above one and a half inches in diameter, and he says: "The lobes of their ears are similarly distended to two inches." This practice also obtains on the south coast, and on the Louisiade Archipelago.

Hair.—One distinct feature of them is that their hair is woolly, like that of the African negro; but they generally allow it to grow longer than he does, and comb it out and tie it together on the head, mop fashion, although in some parts it is worn loose. Beards are also seen, especially on the New Hebrides, but some pull them out, or shave them off with broken glass.

Dress.—As a rule, the men wear only a string or narrow belt around the loins, to which a piece of matting or breech-cloth, a few inches wide, is attached; and the dress of the females consists of a short, bushy petticoat, made of palm-leaves or grass, and

reaching to the knee. But at New Ireland, according to Captain Hunter (1842), they dispense even with this, and go entirely naked; even the women wear nothing but just a leaf in the presence of strangers. Painting and tattooing complete the toilette. At New Ireland the men paint themselves in a variety of ways, white and red being the favourite colours; others, however, prefer charcoal and grease. At the Louisiade Archipelago the men paint their faces with charcoal and lime to appear ferocious, like the Caffres of Africa. At the New Hebrides black and red appear to be the fashion, mixed with cocoa-nut oil.

Tattooing.—Tattooing is very general, yet not universal, among them. On the Brumer Islands (south coast of New Guinea) it is very little practised by the men; but the women are tattooed over the face, forepart of the arms, and the whole front of the body, continued backwards a little way over the shoulders, usually, but not always, leaving the back untouched. At Redscar Bay, a little way further west, the women have nearly every visible part of their skin tattooed in a variety of patterns; and the men are also usually tattooed on the breast, cheeks, forehead, and arms, although much fainter and less profusely than the women. On the Stewart's Islands some were tattooed and some were not.

Ornaments.—Bracelets and necklaces of shells and dogs' teeth, and strings of small white cockles around the legs, are worn at the Louisiade and on the south coast of New Guinea, also on the Solomon Islands. At the Louisiade human lower jaws, with one or two collar-bones attached, were worn as bracelets by the men; and on the New Hebrides the tusks of the wild boar, bent circular, together with rings made of shells, were worn round the right wrist, and round the left a round piece of wood, probably to ward off the bow-string. The chiefs at the Solomon Islands wear on each arm a number of rings made from a gigantic cockle found on the reefs. These rings are so highly prized, and so difficult to be obtained, as often to cause war between the different tribes; and human life is considered of so little value by the natives of this Archipelago that one of the rings can command the head of any individual. Therefore those who have them are possessed of much power, and are consequently much dreaded. A curious bracelet, four or five inches broad, wrought with thread or cord, and studded with shells, was observed by Captain Cook to be worn just above the elbow, by the natives of Mallicolo, one of the New Hebrides. At the Louisiade nearly all the men wear in their hair—projecting in front or on one side—a comb of tortoise-shell or bamboo, long, thin, flat, and narrow, with about six long needle-shaped teeth. The nose-sticks are of polished shell, bamboo, or white stone, and the earrings of tortoise or of cockle-shell, very large. In some parts the heads are ornamented with cocks' feathers, in others with birds of paradise, but this practice is not very common.

Dwellings.—Their houses are built of bamboo and branches of trees, thatched over with palm-leaves or grass, and are generally open at one end instead of having a door. They are built on posts

along the coast of New Guinea and surrounding islands, because of the swampiness of the soil, and at the Louisiade they are generally 30 feet long, 9 feet wide, and about 13 feet high, raised some four feet above the ground, and having an arched, tunnel-shaped roof dropping at each end. At the Brumer Islands they are similar, only the roof is shaped like those of our own houses; the entrance is at one end, overhung by the gable like a curtain, with a small stage to ascend by. The village of Tassai, on the largest of these islands, consisted in 1849 of twenty-seven houses, covering a space of about half-an-acre of ground, built at right angles to each other, but without any other attempt at arrangement. They were of various sizes; the largest were some 25 feet high, and all built on posts four feet from the ground. On the Island of Jobie (Geelvink Bay) several very large towns built on posts were observed in 1840 by Sir Edward Belcher, apparently so combined as to present a formidable defence to an attacking party. On the Solomon Islands, where the soil is rocky and mountainous, they have their houses built in the most inaccessible places, so as to guard against treachery in the night. On one of the Santa Cruz Islands Carteret saw many houses regularly built. One much larger than the rest stood near the waterside, apparently being a kind of common hall or council-house, and was neatly built and thatched. Its sides and floor were lined with a kind of fine matting; and a great number of arrows, made up into bundles, were hung up in it ready for use. At this place there were also many gardens or plantations, enclosed by a fence of stone, and planted with cocoa-nut trees, bananas, yams, and other vegetables. About three miles to the westward of this town he saw another one of considerable extent; in front of which, next to the waterside, there was a breastwork of stone about 4 feet 6 inches high, not in a straight line, but in angles, like a fortification; and there is reason to suppose, from the weapons of those people and their military courage, which must in a great measure be the effect of habit, that they have frequent wars amongst themselves. At Erromango and Vaati (New Hebrides) the natives live in houses covered with thatch, and their plantations are laid out by line, and fenced around. At Tanna, another of the New Hebrides, the houses are very low and badly constructed, being similar to the roof of a house placed on the ground without sides. They are thatched with palm-leaves, and the door or entrance is at one end. Their plantations are well laid out, and covered by reed fences. On the Stewart Islands the houses are similar, and the door or opening is so small and low that they have to creep in and out of them. The fierce gusts of wind, which often sweep over the latter islands and sometimes uproot the most exposed trees, are probably the reason why their houses are built so low.

Canoes.—There is considerable variety in their canoes, but the general feature is the long, narrow, sharp canoe, formed of a tree hollowed out, and guarded against capsizing by one or two outriggers, and propelled by paddles. Such were the smaller canoes I saw on the north coast of Mysori; and they contained only three

men, but the larger ones had rather heavy outriggers on each side, attached to the canoe by cross-timbers or beams, one at every four feet of the canoe's length, and crossed again by longitudinal bamboos, three on a side; on each of these crossings sat a man with a paddle, so that thirty-six or forty men could work their paddles at once, thus securing an unparalleled degree of swiftness. Some twenty or thirty more were in sight, hovering at a distance, and these appeared near the horizon of the smooth, calm sea as so many centipedes or other insects creeping along on a pane of glass. At the Louisiade Archipelago they have washboards around the canoes; the figure-head and stern are raised and more or less ornamented with egg-shells and feathers of the cassowary and bird of paradise. They have only one outrigger on their left side, and their average length is about twenty-five feet, carrying from seven to ten men. The paddles are four feet long, have a slender handle, and a pointed lance-shaped blade; some carry a rather large mat sail. On the Admiralty Islands their canoes are from forty to fifty feet long, neatly made, turned up a little at the extremities, furnished with an outrigger, and a fighting stage on the opposite side amidships. Each canoe has a sail and paddles.

Captain Hunter says: "At New Ireland there is no such thing as a sail to be seen. Their canoes are small, and tolerably well formed, and some have a finely-carved figure-head, and figure-stern also; others are rounded up, like a Malay proa. There is another sort of canoe, of great beam and short, built of soft white wood, without outriggers, flat bottomed, and in model out of water like a proa. These will carry forty or fifty men." He saw but two of them, which were coming from some neighbouring island, loaded with baskets covered up, which the people had a great disinclination to his seeing.

The canoes of the Solomon Archipelago are well constructed, and carry from three to thirty men, according to size. They are built of thin boards sewn together, and timbered throughout their length. In shape they resemble a whale-boat, and are the swiftest in the Pacific. The stem and stern-post of the war canoes project above the gunwales some six or eight feet, and are inlaid with mother-of-pearl shells, and decorated with shells and feathers. They have neither outriggers nor sails, and are propelled by paddles. At the New Hebrides the canoes are made rather clumsily, and have only one outrigger and paddles. At the Stewart's Islands the canoes have two outriggers and paddles.

Weapons.—Their weapons consist of spears and clubs, bows and arrows. The points are made of bamboo, hard wood, or bone, and are often poisoned. At New Ireland slings are used for throwing stones, and no bows and arrows; but at New Georgia, Bougainville Island, and others in the immediate neighbourhood, they have the finest bows and arrows in the Pacific. In the western part of New Guinea bows and arrows are also used for fishing, the same as at Ternate. The fishing-bows are about eight feet long, and have a barbed harpoon point at one end; and

arrows of some four feet length are used to shoot the fish with, whilst the bow serves also for a harpoon. At Mallicolo (New Hebrides) the fighting-bows are about four feet long, made of a stick split down the middle; the arrows are a sort of reed, armed with a long and sharp point of hard wood or bone, poisoned. They keep them always wrapped up in a quiver. Some of the arrows have two or three points, each with small prickles on the edges to prevent the arrow being drawn out of the wound. At Vaati (New Hebrides) tomahawks were also seen, besides the bows, arrows, spears, and clubs; the arrows and spears were poisoned, and the latter barbed at the points. Many of the villages were fortified with stone and wooden fences. At Tanna, another of the New Hebrides, branches of coral rock, about a foot in length and one or two inches in diameter, are used along with the other weapons. They throw them at each other.

Manners and Customs.—Circumcision is practised by the natives of the New Hebrides, and is said also to prevail on the Solomon Islands. At Tanna they allow promiscuous intercourse of the sexes before marriage. When their males reach the age of puberty they divide their hair into portions about the thickness of whipcord, around which they wind narrow strips of grass, until within an inch or two of the ends, which are left to frizzle. Both sexes are filthy in their persons. At Vaati, promiscuous intercourse of the sexes before marriage is also allowed, and polygamy is practised. The women have their hair cut short, and some shave their heads with broken glass. The men shave their faces in the same way, but wear whiskers round the chin. Their hair is crisp and woolly, and they have beautiful white teeth. They wrap their dead in mats and bury them in the ground.

The natives of the Louisiade appear cleanly in their habits. The ground in the vicinity of their houses is clean swept, where not a stray stone or leaf is suffered to remain, and nothing is seen about their dwellings offensive to the smell or sight. The natives of the north-west part of New Guinea are considered filthy, and often suffer from skin diseases. I have seen some whose skin was scaly like a fish all over. The natives of some parts of the New Hebrides are filthy as well. Those of the Stewart Islands are cleanly, and swim and bathe very often. So do the natives of many other islands.

Tobacco is smoked on the north coast of New Guinea, and probably on all the islands where tobacco grows.

The chewing of the betel or areka-nut is also practised by the natives of New Guinea, the same as the Malays. This nut is the fruit of a species of palm, akin to the cocoa-nut tree, differing from it by its stem being perfectly straight and upright, much thinner, and not quite so high, but otherwise similar. The branches or leaves grow in a bunch at the top of the tree, and are somewhat shorter, of a finer colour, and broader than those of the cocoa-nut tree. The fruit is like a cocoa-nut in miniature, and, when deprived of its hairy outer shell and opened, is very similar—both in size

and appearance—to the nutmeg. It has a strong, sharp taste, very tickling to the tongue. To this is added a small piece of gambir (a bitter resinous gum) and a little lime as condiments; and, having wrapped the whole up in three or four aromatic leaves of a creeper plant similar to the convolvulus, which are of an equally sharp and strong taste, they put the whole into their mouths, when in a few minutes the spittle becomes red as vermillion; and the juice is very difficult to wash off anything it is spit upon. It tinges the teeth permanently black; so the betel chewer is easily recognised. In the Malay Archipelago the above-named creeper is called “sirih,” and is cultivated in gardens; and, as the chewing condiments are so many, a basket or box with compartments is used to carry them in. At the Louisiade Archipelago the chewing condiments are likewise carried in a small basket, and the lime in a neat calabash, with a stopper. On the New Hebrides they do not appear to chew the betel.

Country.—Before proceeding to mention another custom which is very general among the Papuas, let us cast an eye on the condition of the soil of the various islands inhabited by them. New Ireland is said to be a continuous forest of fine timber fit for any purpose, producing yams, bread-fruit, cocoa-nuts, bananas, pumpkins, and other vegetables. Duke of York Island, one of the many small islands surrounding New Ireland, is called by Captain Hunter a perfect garden, so neatly were the plantations of the natives laid out, and so luxuriant the vegetation. The houses are situated near the shore, amongst beautiful groves of cocoa-nut trees. Pigs and fowls were seen, as well as all sorts of fruit, sugar-cane, and some spices. The south coast of New Guinea is known to produce yams of excellent quality, all sorts of tropical fruits, tobacco, the sugar-cane, and the sago-palm; and of animals fit for food the wild boar, the common pig, and fowls may be mentioned. Vaati, or Sandwich Island (New Hebrides), is moderately elevated, and presents a beautiful appearance. The hills, where bare of trees, are covered with rich pasture, and the vegetation throughout the island is most luxuriant. It produces many varieties of fine timber; yams and sweet potatoes of a superior quality are extensively cultivated, and cocoa-nuts, bread-fruit, bananas, and sugar-cane are abundant. Pigs, dogs, fowls, pigeons, and fish are eaten. Rossel Island (Louisiade Archipelago), according to Captain Owen Stanley (1850), is high and mountainous, and thickly wooded, with occasional large, clear, grassy patches. The mountain ridges form sharp, narrow crests and occasional peaks, but the outline is smooth and the rock nowhere exposed, even the steepest ridges being covered with vegetation. Large groves of cocoa-nut palms, scattered about from the water's edge to halfway up the hills, formed a pleasant break in the sombre green of the forest scenery. The shores are either bordered with mangroves, with an occasional sandy beach, or clothed with the usual jungle of the island. It appeared to him to be well inhabited. He saw many huts close to the beach—usually three or four together—forming small villages. They were long

and low, resting on the ground (and not on posts), with an opening at each end, and an arched roof, thatched with palm-leaves. At one place he observed what appeared to be a portion of cultivated ground; a cleared, sloping bank above the shore exhibited a succession of small terraces, with a bush-like plant growing in regular rows. Adèle Island is a low woody island, about half-a-mile long; it is joined to Rossel Island by a coral reef, some six or seven miles long, and it forms the eastern extreme of the Louisiade Archipelago.

Having now purposely cast an eye on a few of the countries inhabited by the Papuas, and having thereby established the fact that there is, as a rule, no scarcity of food for man or beast, I must yet add that the waters around most of these islands abound with fine fish, whilst turtles, *biche de mer*, and edible oysters and cockles are found on the reefs. It appears, then, that there is no excuse for the practice so prevalent among the Papuas, which I was going to mention, the horrible custom of eating human flesh. It may be said that there are neither cattle nor sheep on any of these islands, and that the want of these partly accounts for the custom. But when it is considered how many Hindoos live altogether without animal food; that the Malay races generally live on rice or sago and fish only, hardly ever tasting beef or mutton, and abhorring pork; this excuse, if it be one, vanishes, and we are still at a loss to account for cannibalism from any natural causes. It must therefore be ascribed to the desperately wicked character of the Papuas only. At the very places which are most fertile, such as those islands I have selected for description, the people are inveterate cannibals; those of New Ireland averring, it is true, that they only eat the bodies of those killed in battle, but for all that, being constantly at war;—those of the Solomon Archipelago being obliged to build their houses in the most inaccessible spots on the rocks, even to the very summit of the peak on Eddystone Island, to prevent being treacherously killed at night and eaten by the very friends with whom they feasted the day before on a roasted enemy's body, or perhaps on a raw one;—those of Vaati, who, as late as 1849, were yet all cannibals, preferring children to adults and girls to boys; who would go to other villages and exhume bodies that had been buried two, three, or more days, bring them home, cook and eat them;—those of the Louisiade, of whom I will tell you something which came under my own notice as late as 1859. What good can be said of such people as the natives of Vaati, whose custom it is, when they wish to make peace, to kill one or more of their own people, and send the bodies to those with whom they have been fighting, to eat? On the death of chiefs it is the frequent custom among them to kill two, three, or more men, to make a feast for the mourners. When parents are unwilling to bear the fatigue of rearing their children, or when they find them an hindrance to their work, they often bury them alive. (We have seen that others go about searching for the bodies, to devour them when exhumed). We may well say of them with Captain Hunter, when speaking of the Solomon Islanders; "Little can be said in their

favour. They are the most treacherous and bloodthirsty race in the Pacific, and most notorious for cannibalism. They are so addicted to the latter propensity at many of the islands that human flesh forms their chief article of diet." Indeed, many are the cases in which the unfortunate crews of vessels passing through Torres Straits have been attacked and murdered, and, of course, eaten, by the natives of the south coast of New Guinea and the adjacent islands; and it is only within the last fifteen years that they have become more tractable there, owing to repeated visits from men-of-war and well-armed trading vessels, and have found out that trading with the white men is more advantageous than killing and eating them. In 1858 the Dutch barque, "Billiton," was surrounded by some thirty or forty large canoes full of armed Papuas off the coast of Mysori, near Providence Island, and was obliged to fire upon them twice, when the grape shot shattered one of their largest and foremost canoes, precipitating its occupants into the sea, and the second shot made them all beat a hasty retreat; but there is no doubt, had not a breeze, just sprung up, allowed this vessel to escape, they would have returned and all the crew would have finally been converted into black-man.

The next year (1859) a very melancholy case occurred, of which the details are still fresh in my memory. The French barque, "St. Paul," Captain Pinel, on her voyage from China to Sydney, with 350 Chinese emigrants and a crew of eighteen or twenty, ran upon the reef between Adèle and Rossel Islands, before described. All efforts to get her off failed, and the vessel keeping well together, and there being yet sufficient provisions on board for some time to come, the master, with one half of his crew, left the ship in the longboat for the north-east coast of Australia, to seek the assistance of a steamer to get his vessel off, leaving his 350 passengers to the care of the other half of his crew on board the ship. He succeeded in landing on the Queensland coast, from where word was sent to the French authorities of New Caledonia, who were not long in despatching a small man-of-war steamer to the spot. But in the meantime some five or six weeks had elapsed, and what had happened to those he left behind? A few days after the departure of the master, when some of the passengers were bathing near the ship, and others had gone on to the beach, suspecting no evil, a vast number of Papuas, armed with clubs, spears, bows, and arrows approached the vessel from the Rossel Island side. The crew manfully prepared themselves for defence; but the Chinese, although nearly every one of them had a revolver, a hatchet, or a weapon of some kind, were frightened quite out of their wits by the appearance of these black fellows, who, with frightful yells and painted faces, seemed to them so many devils. They soon threw away whatever weapons they had at first taken up in compliance with the crew's advice, and some betook themselves to flight, some ran up the rigging, and others surrendered themselves, vainly hoping for mercy from these demons. The crew fought like lions, especially one, a Greek, who used his cutlass with telling effect, laying many a

Papua in the dust; but he was at last overpowered, and literally torn to pieces. When the remaining sailors saw that, they jumped into the sea, preferring death by drowning. The Papuas now remaining masters of the situation, took all the Chinamen prisoners, and, tying their hands together, took them a little way inland, where they encamped and kept watch over their prisoners, but treated them apparently well, feeding them on yams and other roots. But every day some six or eight of them were brought forward, *beaten all over the body with a club*, in order to prepare them, and then, in the sight of the other poor fellows, they were thrown upon their backs, their bodies ripped open and cut up into pieces and boiled in pots or roasted on the fire, after which they were divided among the Papuas, who often quarrelled about the hands and feet of their unfortunate victims, which seemed to be the parts they relished most. Not a morsel was wasted of their favourite dish; anything that remained was put by in a net or bag worn by a string round the necks of the otherwise quite naked Papuas, and the miserable Chinese, knowing what would be their fate, saw no means of escape from it, and suffered themselves to be immolated without any attempt at resistance. When the war steamer arrived there were only some five or six of them left alive, and when the Papuas saw the boat coming ashore they fled into the interior, hurrying their prisoners along with them; and only one of these, being faint and ill and unable to walk fast, was left behind, near the beach. He managed to crawl towards the boat, where he was untied and taken on board the steamer, which took him to Sydney, his place of destination. Having recovered his health, and being brought before the magistrate at Sydney, he there related his dreadful story through the Chinese police-court interpreter of that place, the only survivor of 350!

Enough has now been said to show the bad character of these negroes of Polynesia, as a rule; yet it would be going too far if it were inferred from these facts that they are all, without exception, cannibals; or that those who now practice cannibalism could not be induced to lead a different life. Indeed, one of the German missionaries referred to above, when at Batavia in 1862 to recruit his health, told me that not long ago the crew of a Belgian vessel, bound from Manilla to Australia, landed at Dorei after losing their ship on a coral reef. To the missionaries they confessed they had killed and eaten two of their shipmates, natives of Manilla, as they would otherwise all have perished of hunger. When this story became known among the Papuas of the neighbourhood, they refused to hold any further intercourse with these European cannibals, saying they would rather have preferred to die of hunger. These were the very people who formerly were cannibals themselves. Now let us look to the natives of Sikyana or Stewart's Islands, who, there is hardly any doubt, have sprung from the cannibal tribe that inhabits Lewenewa or the Lord Howe Islands, and who live only a few leagues to the eastward of the cannibal island of Malayta.

Sikyana or Stewart's Islands.—This group consists of four small islands and an islet, of coral formation, covered with cocoanut and

other trees, and connected by reefs, forming a lagoon inside, abounding with fine and large fish. The inhabitants are but few in number, and have their only village under shelter of the trees on the west side of the largest island, overlooking the lagoon. These people are very hospitable and inoffensive, very tall, well made, and strong, much taller and stronger than the average European, resembling the African negro in all but their complexion, which is not much darker than that of the Malays or Javanese. They have crisp, short hair, shave off their beards with broken glass, and have thick noses and lips. The men go entirely naked, except a narrow belt around the loins, and the women wear petticoats of calico, which they procure from the whalers who sometimes touch here, and take pigs, fowls, cocoanuts, and firewood in exchange for articles of clothing, hatchets, fish-hooks, and other commodities. They live almost entirely on cocoanuts and fish. No fresh water is found on the islands, but they might gather the rain, which often falls, but prefer coconut water, after drinking which, they deprive the nut of its woody shell by beating it to pieces with a stone, and then put the nut on the fire to roast. To this they take a piece of fish, wrap it up in a leaf, and roast it on the fire as well. This is their daily food, roast coconut and roast fish; and the pigs and fowls which they rear are reserved for bartering with. They are expert swimmers, handle their little canoes with ease, catch fish with netting of their own make, or with hooks made of mother-of-pearl shell, which are ground and filed into shape with stones. But they will very gratefully accept a few fish-hooks as presents, also trowsers, but above all sheets or pieces of calico, from which their wives prepare clothing, sewn with mother-of-pearl needles if they cannot procure any other. They are fond of smoking tobacco, which is practised by the aged of both sexes, but for this also they are dependent on passing ships, as the tobacco does not grow there. They can all speak more or less broken English, which they learn from their frequent intercourse with American or English whalers. Some but not all are tattooed. Their war dances, of which I saw them perform two, give evidence of their very warlike, or even cannibal, origin, the dancers advancing towards and retreating from each other with threatening mien and terrible war-cries. Their language is soft, and in sound not unlike the Malay. Several of their words are similar to the Malay or Javanese.

Katah	..	to laugh	..	Malay:	berkatah (to speak)	
Akaway	..	you	..	"	koway	
Fatu	..	stone	..	"	batu	
Karematta	..	eye	..	"	matta	
Affee	..	fire	..	"	apee	
Ruah	..	two	..	"	duah	
Toruh	..	three	..	"	(tiga)	Jav. telluh
Fah	..	four	..	"	(ampat)	" bapat
Leemah	..	five	..	"	leemah	" leemah
Ono	..	six	..	"	annam	" onam
Feetuh	..	seven	..	"	(tudjuh)	" peetuh
Waruh	..	eight	..	"	(delappan),	woluh

It appears, then, that some at least of these natives have laid aside cannibalism and improved their habits; and there is no reason therefore to despair of them as a race.

Religion.—I regret not to know anything about the religion of the Papuas. The practice of circumcision seems to point to, at least, some form of religious observances. On the New Hebrides, Samoan native teachers and European missionaries have been at work for years, but at the Stewart's Islands they had never heard of any missionary, nor did they know what the word meant. Two questions offer themselves to us:—

1st. Is this race of a negro-like people a distinct race in itself, or is it a mixture of two or more races?

I very much incline to the first theory, because of the blackness of the skin and the cannibal habits of the people, who would devour rather than intermarry with any individual belonging to another race.

2nd. Is this race indigenous to the countries where it is now found, or did it go over there from Africa at some remote or more recent period?

To this question I do not venture any answer.

DISCUSSION.

The thanks of the Meeting having been voted to Mr. KIEHL,

MR. A. L. LEWIS said, in reference to the latter part of Mr. Kiehl's paper, that Professor Huxley had associated the Papuas with the negroes; but, as he had also associated the Australians with some Indian tribes and with the ancient Egyptians, there seemed to be many difficulties to be overcome before his theory could be generally accepted. Mr. Kiehl's paper showed that the Papuas possessed a considerable amount of material civilization, and he believed Mr. Pritchard considered the Fijian branch of the Papuas to be on the whole a superior race to the Polynesians.

After some remarks from Mr. KIRWAN BROWN,

THE PRESIDENT said the paper was very welcome, inasmuch as Dumont D'Urville and the Dutch discoverers differed somewhat as to the *physique*, &c., of the Papuas. No European nation has any commercial intercourse with these people. The Chinese trade with them, and the Dutch possess the north-west part of the island. There are three different peoples in New Guinea; the Papuas, the Malays, or perhaps at the present day a cross between the Malays and Papuas; and a people called Alforas. The Papuas occupy the coast of the western half of the island; the Alforas (sometimes called Haraforas) occupy the interior of the western half, and in the eastern part of the island they are also in possession of the shores. The Malays live on friendly terms with the Papuas, and are now mixed up with them. The term *Alfora* is neither a native word nor is it properly the name of any people. It was given to these people by the Portuguese from the Arabic article and the Portuguese

preposition *fora*, "without," and the designation is about equivalent to heathens, gentiles, or kafirs. The Alforas are found not only in all the countries inhabited by the Papuas, but also in the Island of Celebes, which lies considerable to the north-west of New Guinea; and they are probably the only indigenous inhabitants of these parts. They differ considerably from the Papuas, having long straight hair, and being stronger and more active than the latter. They are a very savage people, and in their habits, customs, &c., resemble some of the tribes of Borneo and the Battas of Sumatra. They are cannibals, and practice tattooing by incision, and no one is permitted to marry until he can show the skull of a man whom he has killed. Their dwellings are also different to those of the Papuas and Malays; they erect them between the branches of high trees, to which they mount by a ladder, which is drawn up at night. It is probable that some of the Papuas may have been mistaken for the so-called Alforas. The Papuas were named by the Malays. The Malay word *papūah* (pronounced *papooa*) signifies frizzled, woolly-headed, having many natural curls, curled. The Malays call them *Orang Papūah*, and all the islands which they occupy *Tānah papūah*, the word *ōrang* signifying man, and *tānah* land. The term *Papūah* is perhaps hardly correct, the frizzled hair being to a great extent caused by their constant habit of curling it. The language spoken by the Papuas (of which there are several dialects) is wholly different from that of the Alforas. They have borrowed words from the Malay. The word for water, dialectically *waier*, *war*, *air*, is derived from the Malay *āyer*. Three out of four of the Papuan skulls described by Dr. Barnard Davis in his *Thesaurus Craniorum* are dolichocephalic, and two of them are prognathous, one being very prognathous. In cranial capacity Tiedemann places the adult negro midway between the Malays and the Asiatics and Africans of the white race, whilst Huschke puts the negroes between the Mongols and the Malays. Does Dr. Carter Blake consider that the term "negro" here includes the Papuas; and, if so, which of these statements is to be relied upon?

Dr. CARTER BLAKE said the term "negro" as used by Huschke certainly included the Papuan race. Tiedemann nowhere expressly refers to Papuan skulls or brains.

The following paper was then read by the Author:—

THE PRUSSIANS.

By DR. CHARNOCK, F.S.A., PRES. LOND. ANTHROP. SOC.

It has been variously asserted that the ancient Prussians were compounded of Goths and Vandals, or of Goths and Huns; but this statement is too loose and uncertain; firstly, because the term "Goth" is applicable to several ancient peoples; secondly, because

"Hun" is here used for Sarmatian, and the Huns formed only one of the great Sarmatian family. Others say the first inhabitants of ancient Prussia were composed of Sarmatæ, who dwelt in the east and north-east; Vandals or Wends who dwelt on the shores of the Baltic, or the north of Pomerania; and the Suevi, who occupied the rest of the country. M. de Quatrefages considers the ancient Prussians to have been made up of Slaves and Finns, with only a slight Gothic element, but I am inclined to think that under the term "Finn" he has described one of the Slavic peoples. He puts down the Esths or Esthonians and the Letts as Finnish peoples; but although the Esths are probably of Finnish origin, there can be but little doubt that the Letts are of Slavonic origin.* At the present day no doubt a very large portion of the people are of German origin, divided by language and customs into High and Low Germans. There is still, however, a very large Slavonic element. The inhabitants of Pomerania are partly Germans, partly descendants of the ancient Wends. A large number of Jews are dispersed over the country, and the Prussians of the present day have doubtless some Jewish blood in their veins. In the Mark of Brandenburg and Pomerania there are a great many people of French descent. Charles Weiss, the historian, estimates their number at 25,000† They appear to have been French Protestants who emigrated to Prussia in consequence of the revocation of the Edict of Nantes. There are also many Wallons in the arrondissements of Dusseldorf and Aix-la-Chapelle, but whether of French or Flemish origin I do not know. The Prussians now claim as Prussians all those born in the newly-acquired territory.

The ancient name of Prussia was *Borussia*, and that of the people *Borussi*. Some derive the name Prussian, or Pruesi, from the Slavonic *po*, "upon," and *Reuss*, *i.e.*, "a people living upon the Reuss," a river which falls into the Baltic.‡ Another derivation is from *po* and *Russ*, or *Rusach*, *i.e.*, "a people dwelling upon or next the Russians." The names of Berlin and many other towns and places in the north of Prussia are of Slavonic origin.

* Hueck speaks of the Esthonians as one of the Finnish peoples. In his work, *De craniis Estonum commentatio, anthropologica*, &c. (Dorpati Livonum, 1838-40) he describes not only their cranial characters, but gives a good general physical description of the Esthonians. He says, "In the Esthonian race the skull has an angular form, which, however, often passes into an oval figure. A wedge-shaped skull is more rare among them, and I have never observed one of a round form." See also the works of Baer, and Seidlitz on same subject, quoted by Prichard. On the Letts see *M. Merkel*, *Die Letten vorzüglich in Liefland*, Leipzig, 1797, 8vo. 2nd ed. 1800; *Fred de Fircks*, *Die Letten in Kurland*, Leipzig, 1804, 12mo.; *Schnitzler*, *La Russie, La Pologne, et la Finlande*, p. 527. et suiv.; *M. Kohl*, *Die Deutsch-russischen Ostsee—Provinzen*, Dresde et Leipzig, 1841, 2 vol. 8vo., avec fig. et carte. See also *Encyc. des Gens du Monde*. The Letts are not known under that name until the beginning of the 10th century.

† Charles Weiss, *Histoire des réfugiés Protestants de France depuis la révocation de l'Edit de Nantes*.

‡ The *Reuss* or *Russ* is the same with the Niemen or Memel. It gives name to a place on its banks.

The modern Prussians, particularly in the Rhenish provinces, are under the stature of the English. Some, however, especially in eastern Prussia, are above the ordinary height.* Many are very stout, even when young; which some attribute to the enormous quantity of beer they are in the habit of imbibing; but this, of course, would also apply to the German people generally.

The hair of the modern Prussian is usually light, but it is frequently of a medium tint. As a rule, it is light in youth, but grows darker up to thirty or forty years of age. The eyes are generally of a bluish colour.

The ancient Prussians were dull, heavy, and phlegmatic. The modern Prussians, like the Germans generally, are somewhat dull and stolid. The Austrians always called the Prussians *langsam*, i.e., "slow," and so they are still, notwithstanding the rapidity of their movements in their recent military campaigns. They excel in manly pursuits, especially as riders. They are industrious, brave, and hospitable *among their own people*. They have a great love of order, and are very patriotic. If any one says a word against Prussia, every Prussian immediately boils up and constitutes himself the champion of his country. The Prussians are proud of family antiquity, and cherish the traditions and customs of the fatherland with great eagerness and affection. They have a thirst for knowledge, great attachment to their leaders, and loyalty to their sovereign.

The masses are domineering, selfish, rather coarse, not remarkable for veracity, somewhat pettifogging and parsimonious; and are real Shylocks in money matters. One of their characteristics shows itself in the system of duelling which still maintains itself in Prussia, as in other parts of Germany. Proud and overbearing, however, as the military officers are, duels among them are not frequent. Quarrels and disputes between them are examined into by courts of honour established in each regiment. It rests with the "committee of enquiry," thus constituted, whether a duel shall be fought, and how it shall be conducted. The fighting of a duel without referring the matter in dispute to the court, or refusing to fight when directed by it, is equally punished by disgrace and dismissal from the service. Duels between students at the universities are the most usual, and they very frequently take place. The conditions under which they are fought, however, render them rather matters of skill and amusement than serious encounters. The weapons are long swords with blunt points, but double-edged and very sharp near the end. The object of the duellist is to cut over the guard of his opponent, and to wound his left or right cheek, according to whether he is right or left-handed. A severe cut on the face ends the duel, and the scars thus gained are always looked upon as marks of courage in their possessors.

The morality of Berlin ranks very low. A very large portion of the inhabitants come under the denomination of thieves, mendicants,

*Herr Virchow says, although there are both tall and short men in Prussia, the proportion of the former is greater than in most European countries.

and prostitutes. Within the last six or nine months we read that there were so many bad characters in Berlin that it was dangerous to walk in the streets after dark. During the year 1867 the number of convicted criminals in that city amounted to 65,641, being equivalent to nearly 10 per cent. of its entire population. In more recent years the proportion of convictions has been still greater. According to a late writer, the city contains upwards of 4,000 *Louis*, a class of men, chiefly convicted criminals, who attach themselves to and prey upon the professional prostitutes—of whom there are said to be 33,000, amounting to about four per cent. of the entire population, under the supervision of the police—and as a return protect them against the police, and often act the part of bullies on their behalf. This low state of morals in Berlin may be due in great measure to theatrical influence. Gustav Freytag's review, *Im Neuen Reich*, asserts that for many years past the influence of the Berlin stage upon northern and central Germany has been most baneful; and Herr Wachter, in a recent speech, declared that every evening the popular theatres of the capital trample under foot marriage, morality, and religion, amid the exhalations of beer and tobacco and the laughter of the audience. "All this," said he, "is going on without any effort to check it on the part of those whose duty it is to watch over the people and their morals. By all classes of society, from the learned to the unlettered, even to the lowest rabble, the turpitudes of the stage are frantically applauded."

In the Rhenish provinces, in Birkenfeld, Meisenheim, and Frankfort-on-Maine, the ancient rite of marriage is enforced by law. In Hamburg it is optional. In the old provinces of Prussia and in Hanover it is the only form of marriage accessible to Israelites and to dissenters from the privileged Christian churches. The divorces annually pronounced in Berlin are nearly double those in any European State other than Prussia, perhaps Roumania excepted.

There is considerably more social liberty in Prussia than in England.

Emigration is greatly on the increase, particularly from the eastern provinces of the kingdom. The Prussians are not, however, great colonisers; they usually emigrate to colonies already founded by others. They are very shrewd and wide-awake in business, and they have a very large commerce.

The lower orders are very credulous and superstitious. A large number of the thinking people of the kingdom are either materialists or quite indifferent to religion.

Prussia has produced but few men of eminence. As in Germany, the men of the highest intellect, especially the metaphysicians, are of pure Slavonic origin; have some Slavonic blood in their veins; or are of non-German origin. The Prussians do indeed claim Regiomontanus, Leibnitz, Copernicus, Wolfus, Beethoven, Ramler, Nicolai, Mendelssohn, Busching, Humboldt, Klaproth, and Sebastian Bach; but Lessing and Copernicus were of Slavonic descent; Beethoven and Mendelssohn were of the Hebrew race;

Sebastian Bach was born at Eisenach, in Saxe-Weimar; Busching at Stadthagen, in Westphalia; the birthplace of Regiomontanus is doubtful; Humboldt was French by the mother's side; Weber was virtually a Dane.

There can be no doubt that Prussia, as well as Germany in general, is greatly indebted to France for its civilization. M. Quatrefages, speaking of the French refugees in Prussia, says, "Toutefois, pour apprécier à sa juste valeur le rôle joué dans le Brandebourg par les réfugiés français, il ne faut pas seulement les compter; il faut surtout avoir présents à l'esprit les services qu'ils rendirent à leur nouvelle patrie et la position qu'ils surent acquérir par cela même. Nous ne pouvons entrer ici dans détails, et nous renvoyons à l'ouvrage de M. Charles Weiss, aux écrivains allemands, qu'il a résumés et complétés. Il sera facile de s'assurer que ces éléments nouveaux, venus d'un pays beaucoup plus avancé à tous égards, donna à la nation prussienne tout entière une impulsion inattendue. Presque toutes les sources de la fortune publique furent renouvelées et considérablement accrues, depuis la culture des jardins, fleuristes et maraîchers jusqu'à celle des champs, depuis la fabrication des étoffes communes jusqu'au tissage des teintures de soie et de brocart, depuis la boutonnerie et la chapellerie jusqu'à la joaillerie, depuis l'art d'arracher les métaux à la terre jusqu'à celui de les mettre en œuvre. Grâce aux fugitifs qu'elle avait accueillis, la Prusse échappa à la plupart des impôts qu'elle payait à d'autres États pour satisfaire à sa consommation, et les rendit tributaires à leur tour." And in a note, he adds, "Parmi les cultures introduites en Brandebourg par les Français, il est bon de mentionner la culture du tabac."

Prussian literature is of recent origin, and Prussian poetry and philosophy have been dependent upon external sources; Goëthe owed much to Shakspeare, and Kant to David Hume. Indeed, the German language itself was not adopted by German writers as a medium of their thoughts till a late period. Leibnitz, who flourished towards the end of the 17th century, wrote chiefly in Latin or French.

The culture of music is very extended, and is a part of the Prussian national education; but the Prussians, like the Germans, as a whole, were late in the musical field, and have been great borrowers and imitators of the Italians. Of the five greatest German musical composers; viz., Sebastian Bach, Mozart, Beethoven, Haydn, and Handel, they can only claim the latter, who was born at Halle just four years before that town became a part of Prussia. They have never equalled the Italians either in melody (especially vocal melody), or in the purity of their harmony. They prefer brilliant harmony to pure harmony. Execution upon stringed instruments, especially on the violin, is solid, but wanting in grace and expression, and is far below that of Austria: that on wind instruments is superior. But at the present day the Prussians can scarcely be said to rank very high in musical art. The music performed in Prussia is now to a great extent that of Austria, France, and of old native composers.

The working classes, amounting in the maritime provinces to upwards of a million, including those who work for daily wages and those who cultivate their own little portions of land, are badly clothed, reside in dwellings provided with few conveniences, and live on the worst and coarsest food; potatoes and rye, or buck wheat, are their chief, and frequently their only, food. In ordinary seasons they suffer much in winter, but in times of scarcity their distress and their consequent mortality is increased. The condition of the peasantry, however, varies considerably in the different provinces. In some they are slothful, ignorant, and superstitious; whilst in others the efforts of government to improve their moral and intellectual condition have been attended with success. The *Werders** and the inhabitants of the colonies are the wealthiest and most intelligent of the peasantry. Their houses are not devoid of taste, and their children are well educated. The state of agriculture is low. Implements of husbandry are of as bad a description as the working cattle themselves. The ploughs are ill-constructed.

Education is compulsory. At least 95 per cent. of the people are able to read and write. Amongst Prussian recruits only 2,696, or 3·27 per cent., cannot read and write.

In most of the schools Latin is taught, but educated Prussians, like the Germans proper, write very bad Latin. Notwithstanding the large number of those able to read and write, the people, on the whole, are not so intelligent as the English, and a very large percentage of them are very stupid.

Although the Prussian government promotes the diffusion of knowledge and shows an enthusiasm for science, she has always sided with Russia and Austria in opposing the progress of liberty.

Monarchy in Prussia is absolute; but by the Edict of Oct. 9, 1807, feudal services were abolished or rendered redeemable; and justice, except in political cases, and when the junkers are in question (as proved by a trial for murder that took place some short time back), is impartially administered. With the exception of a censorship in regard to low cheap political writings, the liberty of the press has apparently been fully recognised in Prussia; but, if we take into account that the police have the power to confiscate a newspaper if they should be of opinion that an advertisement is not *bonâ fide*, it must be said that liberty of the press is not very real.

The Prussians proper were converted to Christianity by the Teutonic knights in the 13th century. Their former paganism may be judged of by their offering to *Percunnos*, the mightiest of their triune deities, a fitch of bacon, an account of which custom is found in *Tettau and Temmes, Volkssagen*, No. 16, p. 25. Dr. Bell says, "A mighty deity of the heathens was *Percunnos*. An eternal fire was kept burning before him, fed by oak billets. He was the god of thunder and fertility, and he was therefore invoked for rain and fair weather; and in thunderstorms a fitch of bacon (*speck*) was

* *Werder* is a name given to islands in rivers.

offered to him. Even now* when it thunders the boor in Prussia takes a flitch of bacon on his shoulder, and carries it into his fields, and exclaims, 'O God, fall not upon my fields, and I will give thee this flitch!' When the storm is passed, he takes the bacon home, and consumes it with his household as a sacrifice." There were in Prussia about forty years ago 9 millions of Protestants of different denominations, and about $5\frac{1}{2}$ millions of Roman Catholics; and, although the numbers are now much increased, the relative proportions are probably about the same. The Catholic religion is professed by nearly all the Slaves, by a portion of the German population of Rhenish Prussia, and by the Germans of Westphalia and Silesia. The Mennonites and the Bohemian and Moravian Brothers are not very numerous, and are much dispersed. All religious persuasions enjoy equal liberty, and none of them have any special privileges. The Jews, who are principally located in the former Polish province, as well as in all the commercial towns, enjoy nearly all the civil rights, but without being able to fulfil any public functions other than municipal.

The ruling language of Prussia is German. Platt-Deutsch is generally spoken in the countries between the Rhine and the Elbe, and on the north side of the Harz mountains; and it also prevails along the Baltic, through part of Brandenburg and Pomerania. In Silesia, in the southern part of Saxony, in the trans-Rhenish provinces, and in East Prussia, a dialect, or rather differing idioms, of the High German are spoken, but all are far removed from the language of Saxony. Among the higher classes the pure High German is spoken everywhere, but generally with the peculiar idiom and pronunciation of Berlin. The High German is also universally used in books, in the churches, in the courts of law, and in the more important transactions of commerce. The following is a hackneyed specimen of the Berlin pronunciation:—"Eine yute yebратene Yans ist eine yute Yabe Yottes," for "*Eine gute gebratene gans ist eine gute Gabe Gottes.*" A great many of the upper and middle classes speak English well, but their French is worse than that of the English. The Prussian subjects of Slavonic origin retain their original language. Most of these come under the denomination of Poles, and inhabit parts of Posen, West Prussia, and Silesia. The Lithuanians have their own peculiar language, as have also the Wends. A few of them are settled in the province of Brandenburg, the remainder in Pomerania, and the districts of Leignitz and Kassubon in East Prussia. The Jews are to be met with in every part of the Prussian territory, but principally in the province of Posen.

The old Prussian language, which belongs to the Lettish-Lithuanian stock, died out towards the end of the 17th century. In 1689 it was spoken by only a few old people.

* As the relation is copied from J. L. Pollonius, *De Diis Samogitiæ*, and Hartknoch's *Alt und Neue Preussen*, the latter being published in 1529, it is difficult to know whether to fix this "now" at that time, or at the date of the publication of their *Volkssagen*, 1873 (*Tettau*).

The following is a specimen of this dialect, selected from Vater.

<i>Old Prussian.</i>		<i>German.</i>		<i>Old Prussian.</i>		<i>German.</i>
Kaulan	}	Bein		Gallu	..	Haupt
Kaulin				Wynan	..	Wein
Kaulei				Mistran	..	Fürst
Geits	..	Brod		Muti	..	Mutter
Puton	..	Trinken		Dangon	..	Himmel
Genna	..	Weib		Deiws	..	Gott.
Tapali	..	Tafel		Souns	..	Sohn
Kurpi	..	Schuh		Taws	..	Vater
Likuts	..	Klein		Teckint	..	Machen
Nactien	..	Nacht		Waispattin	}	Frau
Gillin	..	Tief		Supuni		
Mensia	..	Fleisch		Switai	..	Welt
Weisin	..	Frücht				

The following words have been selected from Hartknoch, and are more ancient still. His work was published in 1684.

<i>Old Prussian.</i>		<i>German.</i>		<i>Old Prussian.</i>		<i>German.</i>
Chelmo	..	Hut		Gertis	}	Hund
Caymo	..	Dorf		Singor		
Devus	..	Gott		Pipelko	..	Vogel
Widea	..	Wind		Camnel	..	Pferd
Maista	..	Stadt		Ranko	..	Hand
Wielna	..	Rock		Docti	..	Tochter
Geyto	..	Brod		Curpe	..	Schuh
Mergus	..	Magd		Liurti	..	Klein
Peile	..	Käse		Wielna	..	Rock
Aucte	..	Butter		Galbo	..	Haupt
Norte	..	Hemd		Liete	..	Licht
Salli	..	Salz		Haltnika	..	Kind
Tave	..	Vater		Salme	..	Stroh
Paute	..	Eyer		Mutte	..	Mutter
Debica	..	Gross		Kirkoy	..	Kirche
Wunda	..	Wasser		Ludis	..	Mensch
Wabelko	..	Apfel		Sus	..	Jahr
				Glasso	..	Glas

The following is a copy of the Lord's Prayer in the old Prussian from Grunow* :—

Nossen Thewes, cur tu es Delbes,
 Schwiz gesger thowes Wardes;
 Penag mynys thowe Mystlalstibe;
 Toppes Pratres giriad Delbeszisne tade tymnes sennes Worsinny;
 Dodi mou mes an nosse igdenas Magse;
 Unde geitkas pamas numas musse Nozegun, cademas pametam
 nussion Pyrtainekans;
 No wede numus panam Padomum;
 Swalbadi murnes newuse Layne. Jesus. Amen.†

* See also Hartknoch, s. 94.

† On the old Prussian language consult *Hartknoch*, *De ling. vet. pruss.*, Frankf., 1679, 4to.; *Joh. Arn. Pauli*, *Entwurf von der preussischen Sprache*, in den "Aet Pruss." Bd. 3. S. 581; *Vater* (J. S.), *Die Sprache der Alten Preussen*, Braunsch., 1821, 8vo.; *Parrot*, *Lieven, Letten, Esten*; Stuttg. 1828; *Pott*, *De Borussia-Lithuanica in Slavicis Letticisque linguis principatu*, Halle, 1873, 4to.; *Von Bohlen*, *Ueber den Zusammenhang der jüdischen Sprache mit der lithauischen*, Königsb., 1830, 8vo.

In Prussia the population augments very rapidly. This is authenticated by the official census made regularly, and with the greatest care. From these it would appear that in 1816 the people only numbered 10,349,031, whereas at the end of 1840 they had reached 14,928,501. The census of 1855 gives 17,202,831. In the early part of 1873 the population of Prussia and Lauenburg amounted to 24,604,351.

Besides Germans, there were in Prussia in 1855, 2,230,000 inhabitants of divers Slavonic races, Poles, Wends, &c.; of whom 840,000 were Poles, 225,000 Wends, and 150,000 Lithuanians. There were 20,000 French colonists (12,000 of them in Berlin), 10,000 Wallons, and nearly 235,000 Jews. In Silesia the German population is four-fifths of the whole; in Prussia proper two-thirds; and in the province of Posen it is a constantly increasing moiety, as more and more land is sold to the Germans, and the trade and commerce of cities become almost exclusively German. There are, however, great inequalities in the distribution of the population. It is more dense in the Rhine provinces, and less so in Pomerania and Prussia proper.

There are 2,809,220 women in wedlock in Prussia. The average number of children to each family is three; the average in France is $2\frac{1}{3}$. In 1855, 131,911 couples were married, composed of 83,053 Protestants, 46,997 Roman Catholics. The births in the same year amounted to 617,817, of which 317,823 were males, and 299,994 females. This preponderance of males goes on increasing up to the 17th year, when it diminishes so much as to leave the male population of the whole monarchy in a minority of 47,695.

According to Dr. Schwabe, the ages of the great majority of the inhabitants of the Prussian capital vary from twenty to thirty years; of these the larger portion are unmarried. Elderly people, from fifty to sixty years of age, comprise no more than two and a half per cent. of the population, while those from sixty to seventy amount only to one per cent. The proportion of the floating to the fixed population is as 22 to 78. Among the latter are a considerable number of unmarried women, of whom about 30,000 are said to flock to Berlin from various parts of Germany every year.

According to the census of 1855, the proportion of legitimate to illegitimate births has not varied much since 1816, when we have the first perfectly reliable information. For every 100 legitimate children in the latter year there were 8 illegitimate; in 1828 only 6½ illegitimate to every 100 legitimate children; and in 1852 the proportion was a little above 8. The proportion of illegitimate to legitimate births varies therefore from 1 to 12 to 1 to 15.

Insanity has been considerably on the increase in Prussia since the recent war with Austria. According to Jacobi, there is now in the former country one lunatic to every 1000 of the population. In England and France—judging from the calculations of Sir Andrew Halliday and M. Esquirol—the proportion is about the same.

The rate of mortality in Prussia averages about 1 in 31 of the population. The number of still-born children average 5 per cent.

of the deaths and $3\frac{3}{4}$ per cent. of all births. One-fourth of the annual deaths are of children under one year of age. Among the 550,460 persons who died in 1855, there was one in every 32 Protestants; 1 in every 29 Roman Catholics, and 1 only in every 51 Jews.

The number of suicides greatly increased in Prussia during the period from 1816 to 1855. In the former year there were registered 700 suicides, or about 1 to every 15,000 of the population; and in the latter year 2,351, or about one to every 7,000.

While in England one murder occurs for every 178,000 of the inhabitants, and in Holland one for every 163,000, in Prussia one murder takes place for every 100,000 of the population. On the other hand, one murder occurs in Austria for every 57,000 inhabitants; in Spain one for every 4,113; in Naples one for every 2,750; and in Rome one for every 750.*

DISCUSSION.

The thanks of the Meeting having been voted to the President,

MR. CHURCHILL said he did not differ from the President on history or statistics, but had a much higher opinion of the German character and intellect. The Prussians were, perhaps, the least agreeable people in Germany; but on his first visit to Berlin, going almost direct from England, they seemed to him very pleasing. He had never been treated rudely in Germany or seen any disposition among the Germans to be rude to one another. On one occasion he joined a party from Cologne to Antwerp, who went in the open carriages to see the country. Their companions were poor working people, who, when they knew the purpose of the journey, pointed out what was worth looking at and gave notice of what would be. In an English third-class carriage, a party of foreigners would have been ridiculed and insulted all the way, and asked to "stand some beer" at the end. Women in the German tea-gardens, without a protector, were as safe from insult or offensive staring as in the Palais Royal of Paris, where, on the closing of the shops on a summer evening, they go out, without alteration of dress, with as much security as in the pleasure-ground of an English house. He believed that this security arose in France from the goodness of the police, but in Germany from national feeling. He held that Germany was at the head of the world in government, classical learning, philology, jurisprudence, and history, and from the time of Lessing had been unrivalled in poetry, except, perhaps, by our great poets in the first quarter of the present century.

DR. KAINES stated that the French, and not the Germans, were at the head of the modern historical school. This had been admitted by competent thinkers, such as J. S. Mill, G. H. Lewes, G. C.

* Dreydorff, Jesuits in the German Empire, Leipzig, 1872.

Lewis, John Morley, and others. No German had done for history what Auguste Comte, J. Michelet, the two Thierry's, A. Carrel, and F. Guizot had done. A comparison of the labours of German with French historians would show radical differences, the foremost of which was that of a genuine scientific and philosophic method. The Germans collected facts in a painfully exact way, arranging them in due order. The French selected facts illustrating historic growth and development, and founded on these a genuine philosophy of history. All German so-called "philosophers of history" were worthless, because they started with huge initial assumptions. Their hypotheses not being verifiable in the first stage, no science of history was possible to them.

After some remarks from Dr. CARTER BLAKE, Mr. BUCKLEY, and Mr. KIRWAN BROWN,

MR. A. L. LEWIS said that the paper which had caused such a panic among the authorities of the British Association at Brighton was now before them, and turned out not to be so very "offensive" after all. With respect to Prussian *physique*, General Von Gneisenau, Blücher's chief of staff, who had been obliged for professional purposes to come to *unprejudiced* conclusions, had stated that the Prussian soldiers were inferior in strength to the Russians; he had also stated that he had long been of opinion that the most successful combination to be formed against the armies of Napoleon was one by which the English would bear the first shock of the assault and the Prussians should attack at a later period; this was the combination adopted at Waterloo, and the result, as they knew, justified General Von Gneisenau's opinions. Immorality might be put further out of sight in Germany than in this country, but statistics showed that it was more abundant there.

THE PRESIDENT, in reply, said that his paper related to the Prussians, not to the Germans generally. He would have no objection to reside among the Southern Germans and Austrians. Germany had no doubt produced some very good philologists.

The following paper was then read by the Author:—

THE WENDS OF BAUTZEN.

By Dr. R. S. CHARNOCK, F.S.A., PRES. LOND. ANTHROP. SOC.

THE general appellation of "Wends" * was anciently given to the Slavonian population that had settled in the northern part of Germany from the banks of the Elbe to the shores of the Baltic:

* Some derive the name of the Wends from *wenden*, to turn, because they often turn the soil (!) Leibnitz deduces it from *anticus*, but gives no reason; Ottho Sperlingius (*Tract. de Tit. Re.*, sec. xi.) from Dan. *ven*, friend (Esthon, *wenda*, brother, *wendalyek*, fraternal, *wendalyek arm*, fraternal love). He thinks the Wends imposed this name on themselves to prove to the Swedes and Germans that they did not come to the Baltic shore in a hostile, but in a friendly, spirit; and he is of opinion that *Finithi*, *Finili*, *Findili*, and *Vandali*, the name given to them by different authors, means simply friendship and fraternity. Conf. *Wachter*, Glossarium.

they were divided into Obotriti in the present duchies of Mecklenburg, and Völzi in Pomerania, between the Vistula and the Oder; Haveliaus in Brandenburg; Sorbes or Sorabes between the Saale and Elbe; and Lutizes in Lusatia. In a map of Europe "before the invasion of the Huns," A.D. 370, the Venedæ, Winidæ, or Wendes, occupy the country between the Rube and the Vistula, *i.e.* between the Burgundiones, Galindæ, and Gepidæ; and in a map "after the invasion of the Barbarians," published in the 6th century, the Winidæ or Vendes and Wilzes occur between the Vistula and the Elbe; and the Sorabes are placed south of the Wilzes and north of Bohemia. In Phillip's "map of the Middle Ages" the Obotriti and Völzi are placed between the Oder and the Elbe, in what is probably now the territory of Mecklenburg; and the Sorabei and Lusitzi are marked a little south of Brennaburg, or Brandenburg.

The modern Wends are divided into several families, and are now distinguished and located as follows:—1. The Wagiren or Wagrier about Lübeck and on the Holstein frontier. 2. The Polaben in Lauenburg about Ratzeburg (*Räcibor*). 3. The Linonen or Liunen in Lüneburg. 4. The Obotriten in Mecklenburg, with a temple to Rhetra at new Brandenburg. 5. The Wilzen in Vorpommern and on the coast of the Ost See. 6. The Ransker or Rugier, in the Isle of Rügen (*Rana*), with a Wendish high priest and a temple at Arkona (*Orekunda*). 7. The Pomeranen in Pommern. 8. The Kassuben in Hinterpommern, as far as the Vistula. 9. The Lutizier or Leutizen (*i.e.*, Haveler, Ufraner, and Warnower) in Brandenburg, from the Elbe and Havel to the Oder, with the chief town of Brandenburg (*Branibor*). 10. The Lusitzer (*Luzicenko*) in Niederlausitz, on the banks of the Elbe, the Black Elster, the Spree, and the Lausitzer Niesse, to the Oder, with the towns of Lübben (Lubin), Kottbus (*Khocebe*, *Chosebus*), and Sorau (*Zarow*). 11. The Daleminzer (*Glomacenko*) west from the Elbe to the Saale, south to the Fichtel—and Saxon—Erz-gebirge, with the fortress Gröna, Grana or Gana (now the village of *Jahna*, near Riesa), and the towns of Meissen (*Misno*), Strehla (*Trelany*), Leipzig (*Lipsk*), and Altenburg (*Staronrod*). 12. The Sorben or Serben in Anhalt, between the Elbe, Mulde and Saale, northwards from the Daleminzer; and 13, and lastly, the Milzener or Milzen (*Milcenjo*), in Oberlausitz and in a part of the Meissener district between the Elbe, the Queis, and the Lausitzer-gebirge, with the towns of Lauban (*Luban*), Görlitz (*Zholerc*, *Zhorjele*), Löbau (*Lubij*), Bautzen (*Budysin*), and Kamenz (*Kamjenc*). According to Schneider* the Wends of Oberlausitz number 85,000 and those of Niederlausitz 65,000; in the whole, 150,000.

The Wends of Saxony have all their own religious worship, schools, and literature, and they are for the most part different in manners, customs, and costume from the Germans.

The town of Bautzen (in Slavonic *Budissin*) is situated thirty-

* *Schneider* (Franz), *Grammatik der Wendischen Sprache*, 8vo. Budissin, 1853.

one miles E.N.E. of Dresden, upon the left bank of the Spree. The name is said to be derived from the Bohemian* *bud-nissin*, signifying "lower frontier."† It contains 13,600 inhabitants, about one-half of whom are Germans, and the other half Wends; but in the suburb of Seidau (*Zidow*), which stands on the right bank of the river, and contains 3,000 inhabitants, most of the people are Wends. In *physique* the Wends differ considerably from the Germans. Like the Slovaks, Poles, Russians, and other Slavonian peoples, they have very broad skulls, with a cranial index of 80 to 84 and 88.‡ The Wends of Bautzen are somewhat taller and more powerful than the Germans, and they are also much fairer. The nose is larger, and somewhat resembles that of the Dutch. The people are inhospitable and suspicious, and only display their true character among themselves. They dislike the Germans, and the compliment is returned. They are able-bodied agriculturists, and are long-lived; but they are not so intelligent as the German population. The women have good busts, and are generally rather stout; they make good servants of all work. The men have for the most part laid aside their ancient costume, and there is little difference between their dress and that of the Germans. They usually wear long black coats and black caps, but the women retain their ancient custom. The latter have striped petticoats of various colours. Green striped aprons, which are worn all round, seem to be the fashion. Most of them have large grey woollen shawls, which are worn over the head. Some sport a sort of Elizabethan frill, and a black head-dress, like to that of the Swiss. Shoes or slippers are the usual *chaussure*. 'They,' however, frequently go without both shoes and stockings, but only in summer, and not through poverty.

Among the women, the Catholics are distinguished from the Protestants by their stiff stomachers (which remind one of their sisters of Altenburg), and by coarse woollen sleeves, which bulge out considerably at the muscular part of the arm. A white band on the forehead denotes half-mourning.

In the houses the sitting rooms are neat and clean.

The marriage and baptismal customs and the spinning parties are interesting. A marriage is solemnized with great pomp, and the festivities last several days: the bride's dress is often very costly. The officer who issues the bridal invitations (who in Germany is called *Hochzeitbitter*) is here named *Druschemann*, a word which would appear to be etymologically the same with that of the Oriental dragoman.§ His dress is peculiar, and resembles somewhat that of the last century in England. He wears

* The whole of Lusatia formerly belonged to Bohemia.

† The Wendish *buda* is rendered in German *die bude* (a small house or hut); *niski* signifies low, compar. *njeschi*. The Bohemian *nizky* is rendered low, compar. *nizsi*; and the German is *bude*, in Bohemian *bauda*, *budka*, *kramec*.

‡ See *Welcker*, *Wachsthum und Bau des Menschlichen Schädels*, s. 145, t. 17. 1862.

§ Conf. the old English word *treuchman*, var. *troocheman*, *trouchman*=an interpreter.

a long broad-skirted, collarless coat, with a sort of napkin depending from the right shoulder to the bottom of the skirt; a long-bodied waistcoat, with flowers in his breast; a cravat, knee-breeches, shoes and buckles, and a three-cornered hat adorned with flowers and ribbons. He also sports a fine long stick with knob and tassel. After the marriage the Druschemann also performs the office of jester.

The Wendish language bears most resemblance to the Bohemian and Polish, but it varies in different districts. The Löbauer dialect is reckoned the finest; the Bautzner is used for the written language. That spoken in the Heide and Camenzer districts differs from the other two. The Wends of the north and west borders of Oberlausitz nearly all speak German, with the exception of the elder people; the Bautzner Wends speak a little German. The pronunciation of the Wendish is difficult, and it requires considerable practice to speak correctly. A German who speaks the language will never be taken for a born Wend by one of the nation. The Wendish is easier to master than the other Slavonic languages wherein so many mute consonants require to be pronounced; as for example in the Bohemian. The orthography, however, is somewhat difficult. Everyone who has written on the subject has used his own orthography, without paying any attention to those who have preceded him. The result is that up to the present time there is no fixed orthography. The Wends, nevertheless, like the Bohemians, are very proud of their language.

The alphabet contains twenty-eight letters, without reckoning *f* and *g*, which are only found in words borrowed from the German. The declensions have three numbers, the singular, dual, and plural, each of which has seven cases. The plurals of nouns end in *a*, *i*, *je*, *y*; the adjectives in *y*, *i*, *a*, *e*. There are regular declensions for Christian names, surnames, and geographical names. Diminutives end in *k* for the masculine, *a* for the feminine, *o* for the neuter; double diminutives are formed by adding *atko*, *jatko*, to the first diminutive, and are generally neuter.

The following will give some idea of the dialect of Oberlausitz :

Droha	..	street	Mloko	..	milk
Kapou	..	a cock	Jaka	..	coat
Boh	..	God	Stupen	..	shoe
Brost	..	breast	Most	..	bridge
Porst	..	finger	Lod	..	ice
Woda	..	water	Mieszaz	..	moon
Lud	..	people	Lufft	..	air
Je'en	..	stag	Mjesto	..	town
Piwo	..	beer	Penes	..	money
Nan	..	father	J-hnjö	..	lamb
Sub	..	tooth	Jesor	..	lake
Ranje	..	morning	Rod	..	castle
Maly	..	little	Rot	..	mouth
Krej	..	blood	Bjely	..	white
Morjo	..	sea	Blido, taffla	..	table
Mosch	..	mouse	Stol	..	chair
Rjeka	..	river			

The Lausitzer dialects agree considerably with the other Slavonic dialects; as will appear by the following table:

Oberlausitz	Niederlausitz	Bohemian	Polish	Illyrian	Russian	English
Pól	pol	pül	pól	pol	pol	half
Słoto	sloto	zlato	zloto	zlato	soloto	gold
Bj-ly	bely	bily	bialy	bel	belui	white
Wól	wol	wál	wól	vol	wol	ox
Maly	maly	maly	maly	mali	maliu	little
Worel	jerel	orel	orzel	oral	arol	eagle

Schneider derives a good deal of the Wendish language from the Sanskrit, and he says the German language has many words of Wendish origin, and gives a list of words derived. The Wendish words which would appear to be from the Sanskrit have probably come through an intermediate language; and with regard to the Wendish words found in German it may be remarked that each language has borrowed from the other.

The Meeting then adjourned.

ORDINARY MEETING,

Held at the Scottish Corporation Hall, Crane Court, Fleet Street, London, on Thursday, 19th June, 1873.

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The minutes of the preceding Meeting were read and confirmed.

Elections announced:—

Fellows, E. D. HAMILL, Esq., C.E.; R. B. N. WALKER, Esq., Ph.D., F.R.G.S., &c. (the latter as a Foundation Fellow, he having applied at the earliest moment which his residence abroad—Gaboön, West Africa—permitted).

The Honorary Secretary read the following paper:—

SACRED PROSTITUTION.

BY C. STANILAND WAKE, V.P.L.A.S.

MR. DARWIN, in a recent work (*The Descent of Man*, vol. ii. p. 361), seems to endorse the opinion that the high honour bestowed in ancient times on women who were "utterly licentious," is intelligible only "if we admit that promiscuous intercourse was the aboriginal, and, therefore, long-revered, custom of the tribe" (see Sir John Lubbock's "Origin of Civilization," p. 86); and I propose, in the present paper, to show that the fact referred to has nothing at all to do with the custom sought to be supported by it.

The examples on which Sir John Lubbock relies have been taken from Dulaure's work on ancient religions, but they are more fully detailed in the "Histoire de la Prostitution," by M. Pierre Dufour,

and they certainly form one of the most remarkable chapters in the history of morals. According to Herodotus, every woman born in Babylonia was obliged by law, once in her life, to submit to the embrace of a stranger. Those who were gifted with beauty of face or figure soon completed this offering to Venus; but of the others some had to remain in the sacred enclosure for several years before they were able to obey the law. This statement of Herodotus is confirmed by the evidence of Strabo, who says that the custom dated from the foundation of the city of Babylon. The compulsory prostitution of Babylonia was connected with the worship of Mylitta, and wherever this worship spread it was accompanied by the sexual sacrifice. Strabo relates that in Armenia the sons and daughters of the leading families were consecrated to the service of Anaitis for a longer or shorter period. Their duty was to entertain strangers; and those females who had received the greatest number were, on their return home, the most sought after in marriage. The Phœnician worship of Astarté was no less distinguished by sacred prostitution, to which was added a promiscuous intercourse between the sexes during certain religious *fêtes*, at which the men and women exchanged their garments. The Phœnicians carried the custom to the Isle of Cyprus, where the worship of their great goddess, under the name of Venus, became supreme. According to a popular legend, the women of Amathonte, afterwards noted for its temple, were originally renowned for their chastity. When, therefore, Venus was cast by the waves naked on their shores, they treated her with disdain; and, as a punishment, they were commanded to prostitute themselves to all comers, a command which they obeyed with so much reluctance that the goddess changed them into stone. With their worship of Astarté, or Venus, the Phœnicians introduced sacred prostitution into all their colonies. St. Augustine says that at Carthage there were three Venuses rather than one—one of the virgins, another of the married women, and a third of the courtesans—to the last of whom it was that the Phœnicians sacrificed the chastity of their daughters before they were married. It was the same in Syria. At Byblos, during the *fêtes* of Adonis, after the ceremony which announced the resurrection of the god, every female worshipper had to sacrifice to Venus either her hair or her person. Those who preferred to preserve the former adjourned to the sacred enclosures, where they remained for a whole day for the purpose of prostituting themselves.

The same curious custom appears to have been practised in Media and Persia, and among the Parthians. The Lydians were particularly noted for the zeal with which they practised the rites of Venus. They did not limit their observance to occasional attendance at the sacred *fêtes*, but, says Herodotus, they devoted themselves to the goddess, and practised for their own benefit the most shameless prostitution. It is related that a magnificent monument to Alyattes, the father of Crœsus, was built by the contributions of the merchants, the artisans, and the courtesans, and that the portion of the monument erected with the sum furnished by the courtesans much

exceeded both the other parts built at the expense of the artisans and merchants.

Some writers deny that sacred prostitution was practised in Egypt, but the great similarity between the worship of Osiris and Isis and that of Venus and Adonis renders the contrary opinion highly probable. On their way to the *fêtes* of Isis at Bubastis the female pilgrims executed indecent dances when the vessels passed the villages on the banks of the river. "These obscenities," says Dufour, "were only such as were about to happen at the temple, which was visited each year by seven hundred thousand pilgrims, who gave themselves up to incredible excesses." Strabo asserts that a class of persons called *pellices* (harlots) were dedicated to the service of the patron deity of Thebes, and that they "were permitted to cohabit with anyone they chose." It is true that Sir Gardner Wilkinson treats this account as absurd, on the ground that the women—many of whom were the wives and daughters of the noblest families—assisted in the most important ceremonies of the temple. This fact is, however, quite consistent with Strabo's statement, which may have referred to an inferior class of female servitors; and, considering the customs of allied peoples, it is more likely to be true than the reverse. The testimony of Herodotus is certainly opposed to that of Strabo. But the former acknowledges that he did not reveal all that he knew of the secrets of Egyptian worship, and we must, therefore, receive with some hesitation his assertion that "the Egyptians are the first who, from a religious motive, have forbidden commerce with women in the sacred places, or even entrance there after having known them without being first cleansed." The Greek historian adds:—"Almost all other peoples, except the Egyptians and the Greeks, have commerce with women in the sacred places; or, when they rise from them, they enter there without being washed." Whatever may be the truth as to the inhabitants of ancient Egypt, at the present day he dancing girls of that country, who are also prostitutes, attend the religious festivals just as the ancient devotees of Astarté are said to have done.

If we test the value of Herodotus' evidence on the matter in question by what is known of Grecian customs, it will have little weight. Sacred prostitution at Athens was under the patronage of Venus Pandemos, who is said to have been the first divinity that Theseus caused the people to adore, or, at least, to whom a statue was erected on the public place. The *fêtes* of that goddess were celebrated on the fourth day of each month, a chief part in them being assigned to the prostitutes, who then exercised their calling only for the profit of the goddess, and they expended in offerings the money which they had gained under her auspices. At the height of its prosperity the temple of Venus at Corinth had, according to Strabo, one thousand courtesans. It was a common custom in Greece to consecrate to Venus a certain number of young girls, when it was desired to render the goddess favourable, or when she had granted the prayers addressed to her.

The ordinary Athenian prostitutes appear to have been dedicated to the public service, and they were forbidden to leave the country without the consent of the Archons, who often accorded it only on having a guarantee that they would return. There would seem even to have been a college of prostitutes, which was declared useful and necessary to the state. The story of the social influence of the *heteræ* during the palmiest days of Greece is too well known to need repetition here, and it will be found fully detailed in the pages of Dufour. The majority of the *heteræ*, however, were far from being in the position of Aspasia, Laïs, and others, who were the friends and even instructors of statesmen and philosophers. Although they were allowed some of the rights of citizenship, they were often treated with implacable rigour by the Areopagus, and their children were condemned to the same ignominy as themselves. Curiously enough, the chief accusation against the prostitutes was their irreligion; and, although they were priestesses in some temples, from others they were rigidly excluded.

Among the Romans the prostitute class held a much lower position in public opinion than with the Greeks, and for a long time its members were treated as below the attention of the legislators, and were left to the arbitrary regulations of the police. They were classed with the slave population as civilly dead; and, having once become "infamous," the moral stain was indelible. Dufour says, as to the religious character of Latin prostitution:—"The courtesans at Rome were not, as in Greece, kept at a distance from the altars. On the contrary, they frequented all the temples, in order, no doubt, to find there favourable chances of gain; they showed their gratitude to the divinity who had been propitious to them, and they brought to his sanctuary a portion of the gain which they believed they owed to him. Religion closed its eyes to this impure source of revenues and offerings; civil legislation did not intermeddle with these details of false devotion, which concerned only religion; and, thanks to that tolerance, or rather the systematic abstention from judicial and religious control, sacred prostitution preserved at Rome nearly its primitive features, with this difference, nevertheless, that it was always confined to the class of courtesans, and that, instead of being an integral part of worship, it was a foreign accessory to it." According to some Roman writers, however, Acca Laurentia (the foster-mother of Romulus and Remus), in whose honour the Lupercals were instituted, was a prostitute, and the *fêtes* of Flora had a similar origin. The goddess of flowers was said to have been originally a courtesan who made an enormous fortune, which she left to the state. Her legacy was accepted, and the senate, in gratitude, decreed that the name of Flora should be inscribed in the fasti of the state, and that solemn *fêtes* should perpetuate the memory of her generosity. These *fêtes*, connected as they were also with the worship of the goddess of fecundity, were accompanied by the most scandalous scenes which were publicly enacted in the circus.

The religious prostitutes of antiquity find their counterparts in

the dancing girls attached to the Hindu temples. These "female slaves of the idol" are girls who have been dedicated to the temple service, often by their own parents; and they act both as dancing girls and courtesans. Notwithstanding their calling, they are treated with great respect, and such would seem always to have been the case, if we may judge by the ancient legend which relates that Gautama was entertained at Vesali by a lady of high rank who had the title of "Chief of the Courtesans." No doubt the attention paid to the appearance and education of the temple prostitutes has much to do with the respect with which they are treated, the position accorded by the ancient Greeks to the superior class of *hetærae* being due to an analogous cause.

Bishop Heber says, in relation to the Bayadères of southern India, that they differ considerably from the Nâch girls of the northern provinces, "being all in the service of different temples, for which they are purchased young, and brought up with a degree of care which is seldom bestowed on the females of India of any other class. This care not only extends to dancing and singing, and the other allurements of their miserable profession, but to reading and writing. Their dress is lighter than the bundle of red cloth which swaddles the *figurante* of Hindostan, and their dancing is more indecent; but their general appearance and manner seemed to me far from immodest, and their air even more respectable than the generality of the lower classes of India. . . . The money which they acquire in the practice of their profession is hallowed to their wicked gods, whose ministers are said to turn them out without remorse, or with a very scanty provision, when age or sickness renders them unfit for their occupation. Most of them, however, die young." The Bishop adds, "I had heard that the Bayadères were regarded with respect among the other classes of Hindoos, as servants of the gods, and that, after a few years' service, they often marry respectably. But, though I made several enquiries, I cannot find that this is the case; their name is a common term of reproach among the women of the country, nor could any man of decent caste marry one of their number." The courtesans of Hindostan do not appear to be attached to the temples; but Tavernier relates that they made offerings to certain idols, to whom they surrendered themselves, when young, to bring good fortune.

I have now given the chief facts connected with religious prostitution, and it remains for me to show that this system has nothing to do with any custom of communal marriage, or promiscuous intercourse between the sexes, such as it is thought to give evidence of. Sir John Lubbock says that the life led by the courtesans attached to the Hindu temples is not considered shameful, because they continue the old custom of the country under religious sanction. This statement, however, is inaccurate; and, as I shall show in a separate paper, the idea of the former existence of the custom referred to is wholly unsupported by evidence. The ease with which any doctrine or practice, however absurd or monstrous, will

be accepted if it possesses a religious sanction, would alone account for the respect entertained for religious prostitutes. But among a people who, like the Hindus, view sexual immorality for personal gain with abhorrence, such a calling, if it were based on so barbarous a custom as communal marriage, would inevitably lessen, rather than increase, that sentiment. On the other hand, if the religious position accorded to the temple prostitutes is connected with ideas which have a sacredness of their own, the respect will be greatly increased. And thus, in fact, it is. Probably no custom is more widely spread than the providing for a guest a female companion, who is usually a wife or daughter of the host. Such a connection with a stranger is permitted even among peoples who are otherwise jealous preservers of female chastity. This custom of sexual hospitality is said to have been practised by the Babylonians in the time of Alexander; although, according to the Roman historian, parents and husbands did not decline to accept money in return for the favours thus accorded. Eusebius asserts that the Phenicians prostituted their daughters to strangers, and that this was done for the greater glory of hospitality. So, also, we find that at Cyprus the women who devoted themselves to the Good Goddess walked about the shores of the island to attract the strangers who disembarked.

In the earliest phase of what is called sacred prostitution it was not every man who was entitled to enjoy its privileges. The Babylonian women, who were compelled to make a sacrifice of their persons once in their lives, submitted to the embraces only of strangers. In Armenia, also, strangers alone were entitled to seek sexual hospitality in the sacred enclosures at the temple of Anaitis; and it was the same in Syria, during the *fêtes* of Venus and Adonis. Dufour was struck by this fact, and, speaking of it, says, "It may be thought surprising that the inhabitants of the country were so impressed with a worship in which their women had all the benefit of the mysteries of Venus." He adds, however, that the former were not less interested than the latter in these mysteries. "The worship of Venus was in some sort stationary for the woman, and nomadic for the men, seeing that these could visit in turn the different *fêtes* and temples of the goddess, profiting everywhere in these sexual pilgrimages by the advantages reserved to guests and to strangers."

Besides hospitality, the practice of which is, under ordinary circumstances, an almost sacred duty with uncultured peoples, there was another series of ideas associated with the system of sacred prostitution. In the East, the great aim of woman's life is marriage and bearing children. We have a curious reference to this fact in the lament of the Hebrew women for Jephthah's daughter, which appears to have been occasioned less by her death than by the recorded fact that "she knew no man." When she heard of the vow made by her father, she said to him, "Let me alone two months, that I may go up and down upon the mountains and bewail my virginity, I and my fellows." The desire of the wife,

however, is not merely for children, but for a man-child, the necessity for which has given rise to the practice of adoption: another custom which Sir John Lubbock believes to support his favourite doctrine of communal marriage. In India adoption is practised when a man has no son of his own, and it has a directly religious motive. Sir Thomas Strange shows that the Hindu law of inheritance cannot be understood without reference to the belief that a man's future happiness depends "upon the performance of his obsequies and the payment of his [spiritual] debts." He who pays these debts is his heir; and, as "offerings from sons are more effectual than offerings from other persons, sons are first in order of succession." Hence, to have a son, is to the Hindu a sacred duty; and when his wives bear no children, or only daughters, he is compelled by his religious belief to adopt one. We can understand how anxious for a son women must be where those ideas prevail; and this anxiety has given rise to various curious ceremonies having for their object to prevent or cure sterility. Some of these, which have been described by Dulaure, and other writers, existed in Europe down to a comparatively recent period. In India, and probably in some other Eastern countries, they are still practised, both by wives who have continued childless and by newly-married women, the latter offering to the *Linga* the sacrifice of their virginity.

The desire for children led to offerings being made to ensure the coveted blessing, and to vows to be performed on its being obtained. The nature of the vow would undoubtedly have some reference to the thing desired; and, as related by an old Arabian traveller in India, "when a woman has made a vow for the purpose of having children, if she brings into the world a pretty daughter, she carries it to *Bod* (so they call the idol which they adore), and leaves it with him." The desire for children was anciently as strong among Eastern peoples as it is at the present day, and it is much more probable that this, rather than a habit of licentiousness, either of the women themselves or of the priests, led to the sacrifice at the shrine of Mylitta. If we are to believe Herodotus, the Babylonian women were in his time noted for their virtue, although at a later period they would seem to have lost this characteristic.

The desire for children is directly opposed to the feeling which would operate in the case of communal marriage, where parents and children having no special relation, no one would have any particular interest in preserving the issue of such intercourse. Among the uncultured peoples of the present era, who the most nearly approach in their sexual relations to a state of communal marriage, the indifference to children is very apparent. Infanticide is almost universal, and abortion is commonly practised by the women to enable them to retain the favour of their husbands. The sacred prostitution, which is intimately connected with the craving for children, must, therefore, have originated at a time when a considerable advance had been made in social culture. It would not be surprising if the ancient Babylonish custom had of itself resulted in a system of sacred prostitution. The act of sexual inter-

course was in the nature of an offering to the goddess of fecundity, and a life of prostitution in the service of the goddess might well come to be viewed as pleasing to her, and as deserving of respect at the hands of her worshippers. We have an analogous phase of thought in the Japanese notion that a girl who enters the Yoshiwara for the purpose of thus supporting her parents performs a highly meritorious act. In Armenia, as we have seen, children were devoted by their parents to the service of the Great Goddess for a term of years, and those who had received the most numerous favours from strangers were the most eagerly sought after in marriage on the expiration of that period. That dedication was in pursuance of a vow, which no doubt, like the vows of Indian women at the present day, would at first have relation to some sexual want, although thankofferings of the same character would afterwards come to be presented by the worshippers of the goddess for blessings of any description. Thus Xenophon consecrated fifty courtesans to the Corinthian Venus, in pursuance of the vow which he made when he besought the goddess to give him the victory in the Olympian games. Pindar makes Xenophon thus address these slaves of the goddess: "O young damsels, who receive all strangers and give them hospitality, priestesses of the goddess Pitho in the rich Corinth, it is you who, in causing the incense to burn before the images of Venus and in invoking the mother of love, often merit for us her celestial aid, and procure for us the sweet moments which we taste on the luxurious couches where is gathered the delicate fruit of beauty."

The legitimate inference to be made from what has gone before is that sacred prostitution sprang from the primitive custom of providing sexual hospitality for strangers, the agents by which it was carried out being supplied by the votaries of the deity under whose sanction the custom was placed. Assuming its existence, and the strong desire on the part of married women for children, which led them to sacrifice their own virginity as an offering to the goddess of fecundity, or to dedicate their daughters to her service, we have a perfect explanation of the custom of sacred prostitution. The duty of the "servants of the idol" would include the furnishing of hospitality to the strangers who visited the shrines and *fêtes* of the deity. These pilgrims became the guests of the deity, and she was bound to furnish them with the same hospitality as that which they would have met with if they had been entertained by private individuals. The piety of her worshippers enabled her to do this, either by devoting their daughters for a limited period to this sacred service, in return for which the reward of fecundity would be looked for, or by presenting them absolutely to the goddess in return for favours received at her hands. It is not surprising that among peoples having such notions the temple courtesans were regarded with great respect, nor that those who had acted in that capacity with success were eagerly sought after as wives. It is more difficult to understand how sexual hospitality should have come to be placed under divine sanction. The difficulty vanishes, however, when the

light in which the process of generation is viewed in the East is considered. That which by us is looked upon as due to a passionate impulse was anciently (except among certain religious sects), and is still, to the Eastern mind an act of mysterious significance. The male organ of generation was the symbol of creative power, and the veneration in which it was held led to practices which to a modern European are nothing but disgusting, although to the Semite they partake of a purely religious character.

To pursue this subject further would be to enter upon the wide field of phallic worship. Sufficient has, however, I believe, already been said to prove that sacred prostitution has nothing whatever to do with communal marriage. The only apparent connection between them is the sexual hospitality to strangers which the former was established to supply; but the connection is only apparent, as the providing of that hospitality is perfectly consistent with the recognition of the value of female chastity, and is quite independent of any ideas entertained as to marriage.

In conclusion, I may add that the opinion expressed by Sir John Lubbock, that the Grecian *hetereæ* were more highly esteemed than the married women, because the former were formerly countrywomen and relations, and the latter captives and slaves, is not consistent with the facts of the case. Any one conversant with the social customs of ancient Greece will be able to give a totally different explanation of that phenomenon. The captives and slaves of the Greeks furnished them with concubines and prostitutes, while their wives were taken from among their own countrywomen. At least such was the case in the heroic ages, when, says Mr. Gladstone, the intercourse between husband and wife was "thoroughly natural, full of warmth, dignity, reciprocal deference, and substantial, if not conventional, delicacy." The same writer says, "The relations of youth and maiden generally are indicated with extreme beauty and tenderness in the Iliad, and those of the unmarried woman to a suitor, or probable spouse, are so portrayed, in the case of the incomparable Nausicaa, as to show a delicacy and freedom that no period of history or state of manners can surpass."

The following paper was then read:—

FACTS RELATING TO POLYANDRY.

BY DR. CHARNOCK, F.S.A., PRES. LON. ANTHROP. SOC.

VOLTAIRE seems to have doubted the existence of polyandry. He says, "Those who make laws everywhere are born with too much self-love, are too jealous of their authority, and generally possess a temperament too ardent in comparison to that of women, to have instituted a jurisprudence of this nature. That which is opposed to the general course of nature is very rarely true, but it is very common for the more early traveller to mistake an abuse for a law."

And, referring to the case of the Nairs of southern India, he says, "It is impossible to speak of strange customs without having long witnessed them; and, if they are mentioned, it ought to be doubtfully; but what lively spirit knows how to doubt?" Voltaire's opinion to the contrary, however, polyandry is without doubt not only of very ancient origin, but is still practised by many nations. The custom seems to have been acknowledged by the civilized Sanskrit-speaking people of the North. In the ancient Sanskrit epic, the Mahábhárata, Draupadi (otherwise called Krishná and Páñchálí), daughter of Drupada, sister of Drishtadyumna, is mentioned as the common wife of each of the five Pandava brother princes. By Yudhishthira she had a son, Prativindhya; by Bhíma, Sútasoma or Shrutasoma; by Arjuna, Shrutakírti; by Nakula, Shatánika; and by Sahadeva, Shrutasena or Shrutakarman.* By the laws of Solon an orphan heiress, if her husband proved impotent, was permitted to have recourse to one of his nearest kinsmen.† This law was originally designed only for orphan heiresses who had never been married, and marked out the persons that were to be their husbands; but Solon, to prevent the impotent from marrying, extended the law to those that were already married.

After alluding to the so-called communal marriage among the inhabitants of Taprobana (Diod. Sic. lib. ii. ch. iv.); the Troglodytæ (Strab. lib. xvi. ch. iv. s. 17, Mela, lib. i. ch. viii., Joannes Boemus, lib. i.); the Ichthyophagi (Diod. Sic. lib. iii. ch. i.); the Hylophagi (lib. iii. ch. xxiv.); the Garamantes (Mela, lib. i. ch. viii.); the Agathyrsi (Herod. Melp. iv. 1047, Virg. Æn. iv. v. 146); the Nasamones (Herod. Melp. iv. 172); the Massagetæ (Strab. lib. xi. ch. viii. s. 6); the Tapyri (Strab. lib. xi. ch. ix. sec. 1); the Gindanes (Herod. Melp. iv. 176); the ancient inhabitants of the Hebrides and of Thule (J. C. Solini Polyhistor, ch. xxiii.); of the ancient Britons (Cæsar, Com. lib. v. c. xiv.); and after referring to Cato, who surrendered Marcia, according to the ancient custom of the Romans, to Hortensius, at his request, the paper proceeds: "Of the Nômâdes of Arabia, Strabo says ‡ a man's brothers are held in more respect than his children. The descendants of the royal family succeed as kings, and are invested with other governments, according to primogeniture. Property is common among all the relations. The eldest is the chief. There is one wife among them all. He who enters the house before any of the rest has intercourse with her, having placed his staff at her door; for it is a necessary custom, which every one is compelled to observe, to carry a staff. The woman, however, passes the night with the eldest. Hence the male children are all brothers. They have sexual intercourse also with their mothers. Adultery is punished with death, but an adulterer must belong to another family." Of the Lithu-

* The Sanskrit language has several words for polyandry, polyandrist, polyandrous.

† Plutarch, "Solon." There is a custom of this sort in Abyssinia.

‡ Lib. xvi. ch. iv. s. 25. Puffendorf quotes Strabo in slightly different language in referring to the Sabæans; but he probably refers to the same people.

anians, Æneas Silvius says, "The women, by consent of their husbands, have their sparks, whom they call 'assistants of their bed;' whereas, on the other hand, for the husband to use the like liberty would be accounted highly infamous."*

In the time of Tacitus there were traces of polyandry among the Germans.† We have direct evidence of its prevailing among the Picts in the Irish Nennius,‡ and there are traces of its existence in the British laws of succession.§ Speaking of the inhabitants of the kingdom of Calicut (in Malabar), Ludovicus Romanus relates "that every woman is at the same time married to seven husbands, who lodge with her by turns. When she is brought to bed, she presents the child to which of the seven fathers she pleaseth, and no appeal lies from her determination."¶ Polyandry was anciently practised by the natives of Lanzasota and Fuenteventura, two of the Canary Islands: the women had three husbands.‖ It is said to have formerly existed among the Iroquois, a Confederation of five North American tribes now dispersed, and whose name has disappeared; but no mention is made of it in the most reliable accounts of this people.

The examples of polyandry before given have for the most part been derived from ancient writers, and may by some be looked upon with suspicion. There can be no doubt, however, that the custom has been in vogue in modern times, and that it still exists in many parts of the globe.

The practice of lending wives is so common on the American continent that it would be surprising if the analogous custom were unknown. Among the Eskimo it is ordinarily practised. Dr. Seemann, in a paper on Western Eskimo Land, says, "Two men together sometimes marry the same woman, and lighten the burden of her maintenance. After marriage, infidelity is rare, though some of the elder women behaved in rather a shameless manner during our intercourse with them. A few of the wealthier men are bigamists."*

Polyandry is found in several parts of America. According to Humboldt, it prevails among the tribes of the Orinoco. He says, "Among the Avaroes and the Maypures brothers have often but one wife." It would seem also that the custom is in force among the Guanas of Paraguay. Azara,** after speaking of their mar-

* Conf. Joannes Boemus, De Mor. Gent. lib. iii. ch. vii.; Pufendorf, b. vi. ch. i. p. 573, note, Lond. 1729; translated by Carew. Compare the Italian custom of *Cicesbéo*, the Spanish *Cortéjo*, and the German and French customs mentioned in Lady Hamilton's work on Marriages, Rites, Customs, and Ceremonies; Lond. 1822.

† Tac. de Mor. Germ. xx., Latham's edit. p. 67, et seq.

‡ Appendix l. 1.

§ See McLennan, Primitive Marriage, 8vo., Fdin., 1865.

¶ Navigat, lib. v. ch. viii. Vide et Pet. de Valle, Itin. p. 3; Ep. 7. See Carey's Pufendorf, lib. vi. ch. 1, note.

‖ Conf. Encyc. des Gens du Monde; Mém. de la Soc. Ethno. vol. 2, p. 113. Conf. also Boutier, and Le Verrier.

* Anthropol. Journ., No. xi., cccvii.

** Azara, Voyages dans l'Amérique Mérid., tom. xi. pp. 92—95. See also Darwin, vol. ii. p. 396; and Markham's Travels in Peru and India. Conf. Encyc. des Gens du Monde.

riage ceremonies, says, "Outre cela, aucune femme ne consent à se marier, sans avoir fait ses stipulations préliminaires très-détaillées avec son prétendu, et avec son père et ses parens à l'égard de leur genre de vie réciproque, qui n'est pas le même dans tous les ménages. Il s'agit ordinairement de savoir si la femme fabriquera des couvertures pour le mari; si elle l'aidera, et de quelle manière, à construire la case et à cultiver la terre; si elle ira chercher le bois; si elle préparera tous les alimens, ou seulement les légumes; si le mari n'aura qu'une femme, et si la femme aura plusieurs maris, et combien; et dans ce dernier cas, combien de nuits ils passeront ensemble; enfin elles demandent des explications jusque sur les plus petites choses. Mais, malgré tout cela, le divorce est libre aux deux sexes, comme tout le reste, et les femmes y sont très-portées." The same author goes on to say that polygamy is very rare with this nation. Polyandry is also found in New Zealand,* and in some of the Pacific islands; but the custom is now almost superseded. In the Legend of Rupé, as told by Sir G. Grey,† we learn that "two brothers, named Ihuatamai and Thuwareware, having found Hinauri, when she was thrown by the surf on the coast at Wairarawa, looked upon her with pleasure, and took her as a wife between them both." Traces of polyandry are met with in the Hawaiian custom of Pinalua, to which Mr. Morgan has drawn attention.‡ According to that custom, two or more brothers with their wives, or two or more sisters with their husbands, lived in common.

At the present time Asia appears to be the great stronghold of polyandry. Erkman mentions its existence in the Aleutian Islands; and it likewise prevails among the Koryaks to the north of the sea of Okhotsk; and among the Saporogian Cossacks. Among the Newars of Nepaul, who are divided into several castes or orders, the women are all allowed to have as many husbands as they please, being at liberty to divorce them continually on the slightest pretext.§ Polyandry is common in the Himalayan and Sub-Himalayan regions adjoining Thibet; in the valley of Kashmir; among the Spiti, in Ladak; in Kinawer; in Kistewar (Kishtawar?), and the Hill State of Sirmour.¶ It occurs among the Telingese; in the Sivalik mountains; and among the Kasias. There are unmistakable traces of its existence, till recently, in Gurwhal, Silhet, and Cachar. Again, further south in India, we find it among the Coorgs, and the Maleres and Poleres of Malabar. It also exists, says Seeman, among the Tiars of the East Indies described by Markham.‖ We find the custom in vogue among the Yetœ of Transoxiana (the Yuti or Yuechi of the Chinese historians). There are traditions of its existence among the Rajputs.** M'Lenn-

* See Laftau (J. F.), *Mœurs des Sauvages Américains*, vol. i. p. 555.

† *Polynesian Mythology*, 1854, p. 81.

‡ I. 8

§ Cf. Ed. Rev. vol. xviii. 431.

¶ M'Lennan.

‖ See *Anthrop. Jour.* No. xi. cccvii; and Markham's *Travels in Peru*, &c.

** Tod's *Annals*, &c., of *Rajasthan*, 1829, p. 48; and see Max Müller's *Hist. Sank. Anc. Lit.* pp. 45 et seq.

nan, after referring to the rudest form of polyandry practised by the Nairs, says, "Among the Kooch, with whom marriage is now monogamous, we find the same system, excepting that the family circle includes the daughter's husband as a subordinate member of the family. A Kooch man goes, on his marriage, like the *beena* husband of Ceylon, to live in family with his wife and her mother; on his marriage all his property is made over to his wife, and on her death her heirs are her daughters.* Hence we conclude that the advance from the ruder polyandry to monogamy took place in some way consistent with the preservation of the main features of the family system peculiar to the ruder polyandry—consistent with the mother's maintaining her position as the head of the family, and with an increase of the influence of women as connecting links in the social and proprietary systems. The advance in this direction must be exceptional; at the same time it cannot well be doubted that such a family system as we find among the Kooch had its origin in the ruder species of polyandry." Areher says of the Grooah (Kooloo), "Here one woman cohabits with two, three, and four men, and they may be even all brothers; this practice is universal. I was informed of the rules and modes of intercourse, all evincing a state of society least beholden to civilization, or less sophisticated than any yet known."†

The Todas,‡ one of the hill tribes of the Neilgherries, still practise this custom. Dr. Shortt thus describes it: "If there be one feature more than another that has contributed to invest the Todawar tribe with the great share of interest, or rather curiosity, evinced towards them at all times by Europeans, it is their practice of polyandry, which, as long as they have been known, has been maintained, and is still perpetuated, as a social system among them. Their practice is this—all brothers of one family, be they many or few, live in mixed and incestuous cohabitation with one or more wives. If there be four or five brothers, and one of them, being old enough, gets married, his wife claims all the other brothers as her husbands, and as they successively attain manhood, she consorts with them; or if the wife has one or more younger sisters, they in turn, on attaining a marriageable age, become the wives of their sister's husband or husbands; and thus in a family of several brothers there may be, according to circumstances, only one wife for them all, or many; but, one or more, they all live under one roof, and cohabit promiscuously, just as fancy or taste inclines. Owing, however, to the great scarcity of women in this tribe, it more frequently happens that a single

* Des Ethn. vol. i. p. 96.

† Upper India (1833), vol. i. pp. 235-6.

‡ "The Todas do not now exceed 600 in number. They are divided into two branches, or two great families, one called Perkis or Terellis, who are competent to hold all sacred offices, the other Kulās, who are competent only to hold minor ones within their own families, and who may be considered as the lay class. Until within a few years the two classes never intermarried, but such connections between them are now of frequent occurrence."—Thornton, *Gaz. India*.

woman is wife to several husbands, sometimes as many as six. When any one of the brothers or husbands enters the hut, he leaves his wand and mantle at the door, and this sign of his presence within prevents the intrusion of the others. . . . In keeping with this peculiar marriage system, they adopt a method of affiliation all their own; that is, the first-born child is fathered upon the eldest brother, the next-born on the second, and so on throughout the series. Notwithstanding this unnatural system, the Todas, it must be confessed, exhibit much fondness for their offspring, more so than their practice of mixed intercourse would seem to foster."

The Nairs practise this custom.* Among them a man can have only one wife, whilst a woman may have several husbands.† Montesquieu‡ says of the origin of this custom, "The Naires are the tribe of nobles, who are the soldiers of all those nations. In Europe soldiers are forbid to marry: in Malabar, where the climate requires greater indulgence, they are satisfied with rendering marriage as little burdensome as possible; they have a wife amongst many men, which consequently diminishes the attachment to a family, and the cares of housekeeping, and leaves them in the free possession of a military spirit." In a note, Pyard§ adds, "This is considered an abuse of the military profession, as a woman of the tribe of the Brahmins never would marry many husbands." There are three different accounts of the Nair polyandry. According to the "Asiatic Researches,"¶ it is the custom for one woman to have attached to her two, four, or even more males, who cohabit according to rules. Hamilton|| says a Nair woman can have but twelve husbands, and must select them under certain restrictions as to rank and caste. Buchanan** states that women after marriage are allowed to cohabit with any number of men, but under certain restrictions as to tribe and caste. "It is," says M'Lennan, "consistent with the three accounts, and is directly stated by Hamilton, that a Nair may be one in several combinations of husbands; that is, he may have any number of wives. The accounts, however, differ in regard to one important particular. Buchanan represents the wife as living in family with her mother or brother, while Hamilton represents her as having a house built for her own convenience on being married to the first of her husbands. In the 'Asiatic Researches' the wife is represented as living with her mother or brother. The probability is that both arrangements are occasionally adopted, the more usual course being for the wife to remain in the family of her mother and brothers." M'Lennan further goes on to say, "The three

* The inhabitants of the province of Malabar are now mostly of Arab descent, and profess Muhammadanism.

† The Nayar, commonly Nayr, are a ruling caste in Malabar, professing to be Sâdras, but bearing arms and exercising sovereignty.

‡ Liv. xvi. ch. 5.

§ Lettres édifiantes sur le Milléau; dans la côte de Malabar, par François Pyard, ch. xxvii.

¶ Vol. v., p. 13.

|| Account of the East Indies, vol. i. p. 308.

** Journey, vol. ii., p. 411.

accounts are agreed that the Nair husbands are usually not brothers, usually not relatives, and that the institution leaves male parentage and the father's blood quite uncertain." "In consequence of this strange manner of propagating the species," says Buchanan, "no Nair knows his father, and every man looks upon his sister's children as his heirs."

A modern writer says, "The language and customs of the Singhalese are in some respects peculiar. A woman has frequently married all the brothers of the same family; but this practice is going out of fashion, like many others." Davy says, "Though concubinage and polygamy are contrary to their religion, both are indulged in by the Singhalese, particularly the latter: and it is remarkable that in the Kandyan country, as in Tibet, a plurality of husbands is more common than that of wives. One woman has frequently two husbands, and I have heard of one having as many as seven. This is not confined to any caste or rank; it is more or less general amongst the high and low, the rich and poor. The joint husbands are always brothers." And in a note he adds, "The children called the elder brother 'great papa,' and the younger 'little papa.' There appeared to be perfect harmony in the family."*

The Tibetans live in a state of polyandry, but it is only in use among brothers. "In Thibet," says Dr. Halde, "it is permitted to a woman to have several husbands, although brothers, and ordinarily of the same family. The first child belongs to the eldest husband, and those born afterwards to the others, according to their seniority. When the Lamas are reproached with this custom, they apologize for it by the scarcity of women which prevails both in Tibet and Tartary, where the males are more numerous; but this excuse is trifling, for the Tartars admit of no such irregularity."† Captain Samuel Turner, in *An Account of an Embassy to the Court of the Teshoo Lama in Tibet*,‡ says, "Here we find a practice equally strange—that of polyandry—universally prevailing; and one female associating her fate and fortune with all the brothers of a family, without any restriction of age or of numbers. Nor is this sort of league confined to the lower ranks, it is also found frequently in the most opulent families." Captain Turner adds, "The influence of this custom on the manners of the people, as far as I could trace, has not been unfavourable. Humanity and an unartificial gentleness of disposition are the constant inheritance of a Tibetan. I never saw these qualities possessed by any people in a more eminent degree. Without being servilely officious, they are always obliging, the higher ranks are unassuming, the inferior respectful in their behaviour; nor are they at all deficient in attention to the female sex; but, as we find them moderate in all their passions,

* Account of the Interior of Ceylon, 8vo., Lond., 1821.

† Description de l'Empire de la Chine, &c., vol. iv., p. 572; A la Haye, 1736. See also Regis, Description of the Kingdom of Lassa, in Pinkerton, vol. vii., p. 551; Montesquieu, De l'Esprit des Loix, vol. i. Friar Horace says that in Thibet the men are restrained to one wife, and cannot marry within certain degrees without the bishop's dispensation.

‡ Lond. 1800, p. 348, et seq.

in this respect also their conduct is equally remote from rudeness and adulation. Comparatively with their southern neighbours, the women of Tibet enjoy an elevated station in society. To the privileges of unbounded liberty, the wife here adds the character of mistress of the family and companion of her husbands." A French writer says of this custom in the B'hútán, "Dans le peuple, la polyandrie existe chez les pauvres, de même que la polygamie chez les riches, coutume que l'on retrouve d'ailleurs également au Tibet."* According to Tavernier, the women of Lassa are more vigorous than the men; upon which another writer remarks† that may be a reason why they are allowed many husbands. M'Lennan holds that polygamy, in the Tibetan form, prevailed at one time throughout India; among the race from which the ancient Hebrews were descended; among the Moabites, the ancient Persians; the Druses; and all the Arab tribes in Syria; among the Mongols, Ostiaks, Kirghiz, Turks, the tribes of the Caucasus, the Makololo, and probably many peoples of Africa. The same author is indeed of opinion that all races were originally polyandrous, their prior condition having been one of pure sexual promiscuity. He divides polyandry into two sorts: the ruder form, in which the husbands are not brothers, and the less rude, in which they *are* brothers. "The polyandry of the Kasias, the Nairs, and the Saporogian Cossacks appears to be purely of the ruder sort, and is attended by the system of kinship through females only. It is doubtful what is the form of the institution in some instances, as in the Aleutian Islands, and among the Koryaks; but in all the other cases in which polyandry occurs the authorities show that the ruder form occurs among the lower classes whenever the less rude occurs, except in Tibet, where polyandry is universal, and the husbands are always brothers, except in Malabar, where polyandry is universally practised by all classes saving the Brahmans only; but is of the ruder species among the higher caste of Nairs, and of the less rude among the lower castes, the Tiars, Maleres, and Poleres. It is in the nature of the case that all the possible forms of polyandry must lie in between or be embraced in the Nair and Tibetan forms." He says further, "In Ceylon, where the higher and lower polyandry co-exist, marriage is of two sorts—Deega or Beena—according as the wife goes to live in the house and village of her husbands, or as the husband or husbands come to live with her in or near the house of her birth."‡ "And," says M'Lennan, "among the Kandiyans the rights of inheritance of a woman and her children are found to depend on whether the woman is a Beena or a Deega wife."§

In what has gone before there is no explanation of the origin of the custom of polyandry. M'Lennan's opinion that it is only a

* Ch. Vogel, *Encyc. des Gens du Monde*.

† Pinkerton, vol. vii., p. 606, quoting Green, vol. iv., p. 457.

‡ See also Forbes, *Ceylon*, vol. i., p. 333.

§ The Kandiyans are now under British rule, and their marriages are regulated by a special ordinance.

modification of promiscuity is true in the sense that it supposes intercourse of one woman with more than one man, but to be truly promiscuous the union should be between several men and several women. This actually took place in the Hawaiian custom of Pinalua, where several brothers or sisters had their wives or husbands in common; and to such a custom we must probably trace the origin of polyandry. Whence originated the Hawaiian custom, however, it seems almost impossible to explain.

The Honorary Secretary read the following paper :--

NOTES ON POLYGAMY.

By A. L. LEWIS, M.A.I., Hon. Sec. L.A.S.

THE custom of polygamy, having prevailed over a large portion of the earth from the earliest ages with which history makes us acquainted to the present time, is eminently worthy of the attention of Anthropologists, both as a historical fact and as a living practical question.

Amongst the European peoples, however, this custom has come to be looked upon as highly criminal, and has got so mixed up with promiscuous intercourse, in the popular mind, that it is necessary, in considering the subject, to separate it most carefully from all such practices as those mentioned in the preceding papers, remembering that, if a man with twenty wives confine himself to them in a country where polygamy is recognised, he is practically as true to the marriage tie as the strictest monogamist.

The subject of discussion being thus made clear, the question first arising is, why do we not practise polygamy ourselves? To which the ordinary reply would be, that monogamy was a fundamental principle of Christianity. This, however, is clearly an error, inasmuch as Christianity does not touch the question at all, and monogamy, far from being one of its peculiar doctrines, was practised long before the Christian era.

Under the Mosaic law, and even earlier, polygamy was not only permitted, but in the case of a man dying without issue, it was positively enjoined that one of his surviving relatives (who was almost certain to be married himself) should marry the widow. Turning from the Mosaic to the Christian doctrines, we certainly find Christ intimating that monogamy was a higher ideal than polygamy, but without forbidding the latter. Moreover, we must not forget in this connection that Paul upholds celibacy as being a higher ideal than either; while, on the other hand, his injunction that a bishop should be the husband of one wife, though generally understood to mean that he should not marry a second wife after the death of the first, may also mean that he should not have more than one wife at one time, and would thus imply that others were at liberty to do

so.* It has, however, been suggested by those who have recognised the force of these facts, that the ordinary working of Christian principles would lead to monogamy, which may be quite true while the proportions of the sexes remain practically equal, but no longer.

Since, then, polygamy is not necessarily affected by Christianity, how is it that the ordinary Englishman not only drags the bigamist to the treadmill (and this where all the parties are agreed, the act under other circumstances deserving punishment on other grounds), but, after going to church and hearing of the marriages of Jacob, inveighs against the sinfulness of marrying his wife's sister, not simply in her life, but even after her death?

We learn from Herodotus that while the Persians took many virgins for their wives, and still more as concubines, the Egyptians and the Greeks had no more than one wife, on which Larcher notes that, though Diodorus Siculus states that men of rank in Egypt might marry as many wives as they pleased, it is probable that they contented themselves with one. We might suppose that the Greeks had derived monogamy, like many other things, from Egypt, and had communicated it to the Latins, through whom it had descended to us as a part of the heritage which has come to us in this way, but for the fact that polygamy has never had any deep root among European nations. Thus, although we find polygamy in vogue in Africa, among the Kaffirs, among the Cazembe—whose chief, according to Livingstone, has four wives and six hundred concubines, and sends besides for any woman he likes, killing her husband and *her* occasional concubines—and among other African nations; although we find it in Fiji, New Guinea, and Australia; among the Ainos in Japan, if they are sufficiently successful in hunting and fishing; among the Chinese, where the emperor has just married one chief wife and three secondary ones (in opposition to the statement of Mr. Gardner that a Chinaman may have only one wife but any number of concubines); and in India; it does not seem to have been practised among the Greeks or Romans. We have it on the authority of Tacitus that the Germans never married more than one wife, except as a measure of policy, and it does not appear that the Celts acted differently; so that, viewed in the light of these facts, it becomes a question whether we may not almost regard abstinence from polygamy as a racial characteristic.

While denying that monogamy is necessarily a part of Christianity, we must admit that the two have been very generally preached together; nor is this difficult to explain. It is only in Europe and European colonies that Christianity has taken any deep and permanent root, nor has it here escaped a thorough intermixture with doctrines and practices which were in vogue before its introduction; and it is my decided opinion that monogamy is one of these practices, and that the history of Christianity in Abyssinia affords an interesting confirmation of this view.

The Abyssinians derived their knowledge of Christianity mainly

* The Mormons appear to interpret this passage to mean that a bishop shall have at least one wife, and as many more as he chooses.

from Egypt, and owned allegiance to the Patriarch of Alexandria, and, as we have already seen, Egypt was a country where monogamy prevailed. This, however, was not altogether to the Abyssinian taste, and they, therefore, seeing the opening afforded by the Mosaic law, adhered to it so far as to marry their deceased brothers' wives if they had no children, and, not content with this, granted divorces in the most accommodating manner, even providing for them in their marriage contracts. When the Jesuits arrived they struggled against this, and succeeded so far as to eliminate provisions for divorce from the marriage contracts; but divorces still continue very frequent, and, says the old history from which I take my information, though they "think it unlawful for a man to have more than one wife at once, neither do they allow any marriage to be lawful unless the persons have been joined by a priest, yet there are numbers of them that have a plurality of wives and live with them unmolested; such are, indeed, deprived by the church of the benefit of the holy communion, on account of the scandal it brings to religion, but the state, not deeming polygamy detrimental to society, suffers it to go unmolested." We thus see that, although the Egyptian influence under which their religion was derived has forced a recognition of monogamy upon the clergy, the lay element has always struggled against it, and, although accepting Christianity, still goes on its polygamous way rejoicing.

Having, as I think, shown good reason for believing that our aversion to polygamy is due rather to a racial instinct than to the teachings of Christ or his Apostles, the question arises, whether it should be introduced in this country? Polygamy has, indeed, been thought to conduce to general morality in countries where it is habitually practised, and it might, perhaps, be thought to be a more natural way out of what may be called the "female difficulty" than is the so-called "woman's rights movement;" but the fact that we are racially averse to polygamy would of itself deter any Anthropologist from attempting its introduction amongst ourselves. Besides this, no one will deny that polygamy has evils of its own. The papers read by Major Millingen on Polygamy in Turkey, and by Dr. J. Campbell on Polygamy in Siam, before the Anthropological Society of London, are fresh in the memory of many of us, and will prevent the necessity of saying much about its present aspect; while Solomon, himself an eminent practitioner of polygamy, has left on record his experiences of its working in former ages in a manner which will hardly induce us to follow his example; and, although the system seems to have worked better in the more primitive days of Jacob, few of us would wish to revert to a condition under which we should marry, not only our wives and our wives' sisters, but should be requested by them to include in the matrimonial circle their respective ladies' maids, or, it may be, even the cook and the housemaid.

Since, then, we do not even suggest the extension of polygamy, the only question remaining to be discussed is its treatment where it exists; and it is obvious that, in reducing it from a crime to a

racial peculiarity, we render its continuance in such places more worthy of tolerance.

Take, for instance, the Mormons (who, strange to say, are mostly Europeans, which might be thought to militate against my general theory, but that we have all sorts of crosses in the individuals of our European races, which may reasonably be expected to develop exceptions to general rules); these Mormons are now being exposed to all sorts of tribulation on the *ostensible* ground of their adherence to the "criminal" custom of polygamy, while every other kind of religion or irreligion flourishes unmolested beneath the stars and stripes.

Let us, however, consider the case of our own colonies, and ask whether the want of success which our missionaries feel, however they may disguise the fact to themselves, is not largely due to their preaching doctrines which, though containing much Christianity, also contain much that is derived from other sources, and which, though in accordance with our own natural bias, is entirely repugnant to that of the natives of other countries to whom they preach. We may on this occasion ask especially whether the greater success of Mahometanism is not due to the fact that it permits polygamy, and whether, if, as we believe, Christ left polygamy where he found it, it may not be better that His followers should do likewise, remembering the suffering that may be caused to the innocent women and children of polygamous families by the sudden discontinuance of the system, and trusting to the gradual influences of civilization and of a better form of religion to eradicate polygamy in due time, if it be in truth the utterly evil, barbarous thing they would have us believe it to be?

DISCUSSION.

The thanks of the Meeting having been voted to the authors,

Mr. GOULD AVERY said that in his opinion monogamy was distinctly taught by the Christian religion. Our Lord said, "A man shall leave his father and his mother, and cleave unto his wife, and they twain shall be one flesh." And St. Paul said, "Let every man have his own wife, and every woman have her own husband." And, in fact, in no country or age had polygamy been regarded as compatible with Christianity. Still, he was of opinion that polygamy and polyandry had both been abandoned, rather on social and economical than religious grounds. In Turkey, where the Koran sanctioned polygamy, it was gradually dying out, the Turks finding the having many wives too expensive, and, perhaps, finding, as people do elsewhere, that one wife is as much as one man can manage, and sometimes more. As a scientific inquiry, it would be interesting to learn the effect of these practices upon generation. It is said that when polyandry is practised there is an excess of male children, and where polygamy is usual, an excess of females, but

that both are unfavourable to the multiplication of the species. These points would be valuable to be enquired into.

Dr. KAINES said that the papers contained a great deal of interesting and suggestive matter, but there were one or two points only that he would notice. The first was the absurdity of endeavouring to transplant Western habits and modes of thought to Eastern soil. Missionarism illustrated this, unintentionally of course. One especially, that of monogamy, was worthy of notice. Dr. Kaines added that allusion had been made, during the course of the discussion, to the erotic character of Solomon's Songs. Niebühr, the historian, held that the Bible would be incomplete did it not contain a book devoted to the expression of that highest, deepest, and most lasting emotion, love. Critics thought that in Solomon's Songs Solomon himself was endeavouring to win the affections of a betrothed Jewish maiden whose personal attractions, real or supposed, he described in a manner peculiar to the East. Eastern love poetry was very frequently unquotable, as Dr. Kaines had had many opportunities of testing.

After some remarks from MESSRS. CHARLESWORTH, BUCKLEY, KIRWAN BROWNE, and Dr. CARTER BLAKE,

THE PRESIDENT said there was no doubt that sacred prostitution was carried on in the Carthaginian Republic. The especial temple was at Sicca, sometimes called Sicca Veneria, and even Veneria simply. The place was situated about three days' march from Carthage, south of Hippo Regius, and near the river Bagrâda (*i.e.*, the Rubricatus). Its ruins are visible near the modern Kef. Here the virginity of daughters and the chastity of wives were offered in sacrifice. According to some authors, Sicca was a colony from Assyria. The institution may, however, have been a native one. The Hebrew word *kadash* signifies literally "consecrated;" "one consecrated to Astarte or Venus;" finally, a "pederast." The feminine, *kadashah*, is rendered a "harlot," literally, "consecrated to Astarte;" and *kedesh* is a "sanctuary." Sicca would seem to be the same name as Succoth, a town in the tribe of Gad, signifying, according to some, "booths or tents;" hence, *Succoth-benoth*, "the booths or tents, or perhaps, tabernacles of the daughters," *i.e.*, of the women. There was also a temple of this sort at Malta, dedicated to Mylitta (surname of Venus), the ruins of which were preserved for a long time. The name in Phœnician might mean a "refuge or retreat," and in Carthaginian an "altar." Sexual hospitality is still in vogue in Lapland, and, as some assert, in Little Wallachia; in Madagascar; and on the Congo.

Lamech appears to have been the first person mentioned in the Bible who practised polygamy. He took to himself for wives, Adah and Zillah. It would seem from Genesis that this and similar naughty practices led to the deluge. The custom was however tolerated by the law of Moses. In Christian countries polygamy has been forbidden, both by the church and the civil law, under severe penalties. It had, in some countries, been punished with death. The Mormon creed does not mention poly-

gamy ; and, although the prophet, Joseph Smith, sealed to himself "plural wives" shortly before his death, polygamy was not practised by the Mormons until after that event. The institution is perhaps not always due to the same cause. The Kurān allows four legitimate wives. In hot climates the rite may have originated from an overplus of females, or in consequence of the premature old age of women ; and might sometimes have been occasioned by the Oriental desire for offspring. It had been asserted that polygamy is the cause of a decrease of population, and also that it produces an excess of females. The former had not been proved, and the latter notion might have arisen from the misunderstanding of a passage in Montesquieu, who says, "In the southern climates of Asia the number of female births preponderates, and unless this circumstance is to be attributed to polygamy, its influence on population must still remain problematical." Again, among so-called polygamous peoples, polygamy is the exception ; and, if chastity be taken into account, there is probably more virtual polygamy among so-called monogamists than among polygamists. Polygamy and immorality do not run hand in hand. The Turks are honest, truthful, hospitable, and sober ; and all the brothels in Stamboul are in the hands of Greeks, Armenians, and Jews.

Mr. LEWIS, in reply to Mr. Gould Avery, said that the passages he had quoted would apply as well to each individual polygamous marriage as to a monogamous union. He had, however, stated in his paper that both Christ and Paul appeared to consider monogamy as superior to polygamy, but celibacy as superior to either. He thought that generation was rather a question of race than of monogamy or polygamy, the statistics as to the effect of the latter in various countries differing greatly. The President had attributed polygamy to other causes than the effect of race, such, for instance, as premature old age, but many of these causes being really racial the result was, though indirectly, the same. The question as to the marriages of bishops was of little importance either way. Those who looked upon polygamy as criminal, and upon monogamy as divinely ordained, should certainly explain why monogamy was practised by heathen nations at the time when polygamy (in certain cases) was enjoined upon Israel. His hypothesis explained this anomaly. The Meeting then adjourned.

ORDINARY MEETING.

*Held at 37, Arundel Street, Strand, on Tuesday, 2nd November, 1873,
at 8 p.m.*

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

THE Minutes of the last meeting were read and confirmed.

Elections announced:—

Fellows: H. G. ATKINSON, Esq., F.G.S.; HURST DANIELL, Esq.; Rev. T. R. LLOYD, M.A.; A. F. JONES, Esq.; Rev. R. KAINES; R. CADENHEAD, Esq.; G. HARRIS, Esq., F.S.A., F.R. Hist. Soc.; Prof. G. LEITNER, Ph.D.; C. G. LOCK, Esq. C. H. WILLIAMS, Esq.

Honorary Fellow: Dr. PRUNER BEY.

Corresponding Fellows: M. E. HAMY; J. W. TYAS, Esq.

The Honorary Foreign Secretary read the following

REPORT ON THE BRADFORD MEETING OF THE BRITISH
ASSOCIATION, *held September 17—24, 1873,*

By JOHN BEDDOE, M.D., F.R.S. (President of the Department of Anthropology for 1873).

THE Bradford Meeting differed most strikingly from that held at Brighton last year. At Brighton we basked in the clear, unsullied sunshine of an unusually bright and hot August; at Bradford a dull and chilly September was further darkened by the smoky atmosphere of a manufacturing town. At the former place the absence of other occupations of an engrossing kind in a city of attractive aspect and devoted to pleasure, combined with the near neighbourhood of London, and a certain development of activity among the African lions and other geographers, the result of the recent "Finding of Livingstone," raised the number of attendants at the meeting to a sum total quite remarkable; at the latter the comparative unattractiveness of the town itself, and the fact that its educated classes are not leisurely but all busily engaged in trade or otherwise, and that no element of personal or romantic interest was expected to enliven the Geographical or any other Section,* caused the number to sink considerably.

It is only fair to the town and people of Bradford to state that the former, in spite of the smoke nuisance, against which a vigorous and creditable warfare is carried on by the authorities,

* The opportune arrival of Captain Markham during the discussion of the Arctic question did, however, after all, afford somewhat of this kind of interest.

is rapidly becoming a very handsome town, with a number of stately and costly public buildings, as well as whole streets of palatial warehouses and gigantic factories; and that the latter, following the lead of an able and spirited Mayor and active local Secretaries, received the Association and its members with a hospitality characteristic of Yorkshiremen, and which has probably never been surpassed in the annals of the body. The beauty and interest of the Craven district, and other parts of Yorkshire north-east and north-west of Bradford, are generally known; and several very attractive excursions were organized, including one to the Victoria Cave at Settle, in which several of the leading Anthropologists took part by invitation.

The Section of Biology met under the presidency of Dr. Allman, F.R.S., &c., who had elected the department of Zoology and Botany as his special care, while Dr. Rutherford took charge of the department of Anatomy and Physiology (which, owing mainly to the development therein of Dr. Ferrier's recent discoveries in Cerebral Physiology, proved unusually popular), and I myself sat in that of Anthropology. The united Section, according to established custom, met together to hear the eloquent and admirable address of Dr. Allman. The President and Dr. Rutherford courteously deferred the opening of their departments until the address in Anthropology had been delivered; and on the following day a similar compliment was paid to Dr. Rutherford. One or two respected members mildly protested against these mutual amenities; but I believe the great majority of Anthropologists agreed with me in thinking them amply justified by the near connection of the several branches of Biology, which renders them mutually interesting to the followers of each and all.

The number of papers read in the Anthropological Department was below the average, and it is noteworthy that not one of them was contributed from Yorkshire. The reading and discussion of them occupied four days.

FIRST DAY.

Dr. BEDDOE, F.R.S. Opening Address on the Anthropology of Yorkshire.

Col. A. LANE FOX, V.P.A.I. Preliminary Report on behalf of the Committee for preparing Anthropological Instructions for Travellers.

Miss A. W. BUCKLAND. On the Serpent in connection with Primitive Metallurgy.

Dr. KAINES, M.A., Tres. L.A.S. A true Cerebral Theory necessary to Anthropology.

SECOND DAY.

Rev. W. WYATT GILL, B.A. Notes on Coral Caves, with Human Bones in Stalagmite, on Mangaia, in the Hervey Islands, and on the Ethnology of the Inhabitants.

J. S. PHENÉ, F.S.A., F.G.S. On an Age of Colossi.

E. B. TYLOR, F.R.S. On the Relation of Morality to Religion in the Early Stages of Civilization.

THIRD DAY.

- R. DUNN, F.R.C.S. Some Remarks on Ethnic Psychology.
- D. HYDE CLARKE. On the Comparative Chronology of Man in America in relation to Comparative Philology.
- Dr. MOFFAT, F.G.S. On a Horn and Bones found in a cutting in a street in Maidenhead, Berks.
- W. PENGELLY, F.R.S., F.G.S. On Flint Implements found in Kent's Cavern, Torquay.
- Dr. SINCLAIR HOLDEN, F.G.S. On a hitherto undescribed Neolithic Implement.
- F. W. RUDLER, F.G.S. Notes on Stone Implements from British Guiana.
- Dr. HYDE CLARKE. On the Pre-historic Names of Weapons.

FOURTH DAY.

- Dr. HYDE CLARKE. On the Ashanti and Fanti Languages.
- W. BOYD DAWKINS, M.A., F.R.S. On the Northern Range of the Iberians in Europe.
- Dr. BEDDOE, F.R.S. Notes on the Iberians.
- J. PLANT, F.G.S. Exhibition of a Bronze Implement and Bones recently found in Leicestershire.
- C. H. E. CARMICHAEL, M.A. Observations on Professor Gennarelli's Paper "On the Existence of a Race of Red Men in Northern Africa and Southern Europe in Pre-historic Times."
- PARK HARRISON, M.A. On the Passage of Eastern Civilization across the Pacific.

Sir WALTER ELLIOT presided on the fourth day; and Mr. F. W. RUDLER acted as Secretary throughout the meeting, "with great ability and zeal.

The Opening Address was of the nature of an epitome, containing little that was actually novel. Dr. BEDDOE inclined, though very doubtfully, to attribute the dolichocephalous tenants of the "Danes' graves," near Driffield, to an Anglian or Frisian colony. He dwelt with much approbation on Professor Phillips's description of the physical types prevalent in Yorkshire, and spoke of the moral type predominant in the county as having some elements common with the Scotch and some with the Saxon-English character, and as being essentially Teutonic in that sense of the word which includes the Scandinavian element. The Yorkshireman was generally lighter haired and broader headed than the average Englishman.

Col. Fox's report explained the present position and past proceedings of the Committee appointed last year by the Association to draw up Anthropological instructions for travellers. It was subsequently laid before the Committee of Recommendations by Professor Allman and Dr. Beddoe, and a further grant of £25, making £50 in all, was obtained for the completion of the little volume of Instructions now in progress. M. Broca's chromatic types had been adopted, and were being reproduced for the use of the Committee under the superintendence of our illustrious colleague.

Miss BUCKLAND's paper was read in abstract by Mr. Phené; but even the abstract was very voluminous. The authoress brought a great deal of varied learning to bear upon her hypothesis, which may be briefly stated to be this—that the serpent was the totem of certain primitive Turanian tribes, who were also the first metal-workers, and for some reason not clearly made out associated the discovery of metallurgy with their totem; that their knowledge of metallurgy did not, however, extend beyond the use of gold, silver, and copper unsmelted, but that by extensive migrations they carried that knowledge from Asia into Europe, Africa, and even America, leaving traces of their movements in serpent symbols, mounds, megalithic monuments, &c. She dwelt on the absence of serpent traditions among savages living in the stone age, except the Fijians, who showed indications of Asiatic admixture; while, on the other hand, smelting appeared to be an Aryan invention. This paper gave rise to a good discussion, in which Dr. Hume, Dr. Ginsburg, Mr. Moncreux Conway, and Mr. Phené took part, and which turned mainly on the possible modes of origin of serpent-worship, *e.g.*, awe felt by witnesses of the quasi-miraculous effects of cobra-poison.

Dr. KAINES's paper followed. As it will, it may be hoped, be laid before this Society, it is unnecessary to say much of it here, except that it was an ably-written exposition of modern Phrenology, based to some extent on Comte. This paper, as well as one by Mr. DUNN, acquired additional interest from the direction of the public mind at the moment towards Cerebral Physiology, through the experiments and dawning discoveries of Dr. Ferrier.

The paper of the Rev. W. WYATT GILL was short, but interesting, and the collection of Hervey Island implements, weapons, &c., which he exhibited, was small, but extremely curious and valuable. The bones were found in a remarkable belt of uplifted coral which surrounds the interior part of the island of Mangaia, the caves of which have at times been used as refuges, as habitations, and as cemeteries. Those exhibited were infiltrated with lime to such an extent as to be almost stalagmitized, yet they were declared by the "wise men" of the island to be the remains of a cannibal tribe extirpated *en masse* about the year 1718. Mr. Gill's opinion, based mainly on native traditions, was that the Hervey group was peopled less than 600 years ago, and that the colonization of the islands of the Eastern Pacific was of much more recent date than was generally believed.

Mr. PHENÉ's paper was directed to showing the probability of some ethnological connection between the numerous peoples who had been producers of Colossi. He maintained the existence of three great centres of Colossi—the Egyptian, the Malayan, and the Mexican; and from the architectural and emblematic similarity of the works found in all three, he argued for the likelihood of some racial or historical connection between the people who erected them. Numerous graphic illustrations enhanced the value of his disquisition, and among them was a representation of the "Wil-

mington Giant," a huge figure incised in the side of a chalk hill in Sussex, which Mr. Phené, with great cogency, sought to prove to be the area of the gigantic wicker-work idol mentioned by Cæsar. Some investigations and restorations, it appears, are in progress at this spot, for which additional funds are required, and will, it is to be hoped, be forthcoming. Much discussion followed this and the next communication.

Mr. TYLOR maintained that in remote and pre-historic times, though morality and religion were both existing and powerful, they were entirely, or almost entirely, separate agents, derived from different sources, acting by different powers, and enforced by different authorities. He then proceeded to indicate the modes in which unethetical theologies, of the class represented by those of the Australians and the Basutos, pass into ethical theologies, such as those of the Mexicans and Chinese. The coalescence between morality and religion might take place in many different ways. Manes-worship was a very obvious one, and the theory of transmigration supplied another. Mr. Tylor traced the history of the marriage rite in certain nations, showing how it had acquired a religious sanction; while, on the other hand, medicine had gradually become emancipated from the domain of religion, to which it was constantly referred among the lower races.

Mr. DUNN summarized the history of cerebral anatomy and physiology and the connection of psychology therewith, so far as hitherto made out. He urged the importance of the study of ethnic psychology, and the pursuit of the scientific method of Gratiolet; and he maintained the doctrine that the Caucasian brain passed through stages corresponding to the gradually ascending position and development of several other typical families of mankind.

The next paper, by Dr. HYDE CLARKE, was an outline of his philological researches on the American languages, and the connection of their several groups with different groups which could be made out in the Eastern Continent. Among the points incidentally brought out were certain common characteristics in the languages of dwarf races in various parts of the world, and the existence of two apparently entirely distinct tongues within the narrow area of the Andaman Islands.

Dr. MOFFAT then exhibited an ox-horn of somewhat peculiar type, found as above stated, to which he invited the attention of palæontologists.

Mr. BOYD DAWKINS thought it did not exactly agree with the horn of either the urus or the longifrons, but was intermediate in aspect. He, however, doubted its being of great antiquity.

Mr. PENGELLY followed, and premised his paper by a promise, received with much applause, that he would henceforth be less of a stranger than he had hitherto been in the Anthropological department. His communication was an important one, and gave rise to much discussion among our palæontological brethren, who mustered very strongly.

He thus divided the deposits in Kent's Cavern—

- | | | | |
|----|--|--------------------------------|---|
| 1. | A. Black Mould | Ovine Period. | Metallurgy. |
| 2. | { B. Granular Stalagmite..
C. Cave Earth..... } | Hyæna Period. | Implements of Bone.
Do. of Flint, unpolished,
made from flakes. |
| 3. | { D. Crystalline Stalagmite }
E. Breccia | Ursine Period.
(Bears only) | No Bone Implements.
Very rude Flint ones. |

The first two periods were named from the predominating animal. Mr. Pengelly thought that England had been united with the continent during a part at least of the second period. The discoveries in the lowest deposits appeared to indicate an antiquity for the human race in these parts far greater than had been proved by the finds in the Brixham Cave.

The discussion turned mainly on what may be called mammalian scales of antiquity, such as Lartet's; but none of the author's points were seriously impugned.

Dr. SINCLAIR HOLDEN sent a neolithic implement found in Antrim, very delicately serrated, which he believed to be undescribed, and proposed to call "a saw." He had found experimentally that the teeth were too delicate for use in scraping. Mr. EVANS said he had figured such an instrument, though not so fine a specimen, and had called it "a hollow scraper."

Mr. RUDLER exhibited stone implements from Guiana, of kinds unknown to the Indian inhabitants of that country: they had been found in digging over what seemed to have been the site of a village now wholly forgotten. One implement of peculiar form had probably been a pounder. They had all been collected by Mr. C. B. Brown.

This day's proceedings were wound up by Dr. HYDE CLARKE, with a suggestive paper on the ancient names of weapons, their etymology and significance, and on the possibility of tracing the course of introduction and migration of improved forms of weapons by the identity or similarity of their names.

Professor Gennarelli's paper, of which Mr. CARMICHAEL's was a review, is said to have attracted much attention in Italy. Gennarelli's hypothesis was intended to account for some well-known and curious facts, such as the red colouration and almond-shaped eyes of the figures in Etruscan as well as Egyptian representations. He did not believe that the Etruscans themselves were of that type, but that they adopted a pre-existing type in their paintings. He connected the ancient, non-aryan races of western Europe with the Iberians; and from the existence in all the regions mentioned of pyramids, labyrinths, mummies, &c., and in some of them of hieroglyphic writing, and of indications of relations of language, he was led to credit the tradition of Atlantis, and to conjecture a connection between his Europeo-African red men and those of America.

Mr. PARK HARRISON's paper was an endeavour to show, from the evidence of monuments, statues (as on Easter Island), customs

(such as that of enlarging the ear-lobe), and traditions, the probability that a tall, high-nosed race, of considerable attainments in civilization, did at a period somewhat remote pass eastwards across the Pacific, even so far as Peru. It contained a great mass of interesting facts relating to Easter Island and its inhabitants.

Mr. BOYD DAWKINS, having recently visited Aquitaine, gave an interesting discourse on the Iberian race, and its extension north of the Pyrenees and into Britain. He characterized the Iberians as dark, slim, dolichocephalous people, of 5 ft. 4 in. or 5 ft. 5 in. in height, identified them with the Silures and the British long-heads, and derived them from Asia through the south of Europe. Dr. BEDDOE followed, on the same subject, maintaining the existence of a common race-element in the Basque country, in Bretagne and in Wales, and inclining to ascribe the dark, short, but broad-headed people of Aquitaine and central France, who seemed to have mixed with the true Basques, to a Ligurian origin.

Dr. HYDE CLARKE gave a short account of the relations of the Ashanti, Fanti, and other languages of the Guinea Coast. He maintained the existence of a connection between these and the language of Corea. He also made some remarks on a report by Dr. Bleek on the language of the Bushmen, eulogising the spirit and liberality of the Cape Government in fostering such researches.

Mr. PLANT, on this the last day, exhibited certain objects found in Leicestershire, which I did not myself see.

Of addresses and communications not belonging to the department, but highly interesting to Anthropologists, the presidential addresses of Dr. Allman and Dr. Rutherford ought to be mentioned. Dr. Ferrier's paper on the localization of functions in the brain, roughly described as the foundation of a new phrenology by experimental researches on the mammalian brain, and Dr. Struthers's on the diverticulum of the small intestine in man, attracted great attention. Dr. Struthers's statement that the diverticulum in question, as well as the appendix vermiformis, was a mere remnant or scaffolding left behind when no longer wanted, provoked a lively discussion, in which the evolutionists had the better of their opponents. In the Geographical Section the Rev. W. Wyatt Gill gave an account of his three visits to New Guinea, where he found at least two races of men, his account of which will, it may be hoped, be published in full. The rate of deposition of stalagmite was discussed by the geologists, Mr. Boyd Dawkins affirming an increase to a particular boss in Ingleboro' Cave of $5\frac{1}{2}$ inches in twenty-eight years; Mr. Tiddeman ascribing part of this increase to tallow from the visitors' candles; and Mr. Pengelly instancing a spot in Kent's Cave where an inscription, dated 1668, had been covered since then with a film of not more than $\frac{1}{80}$ inch in thickness. The glacial period, in relation to the discoveries in Settle Cave, was vigorously fought over once more.

Of grants made by the Association, only one, which has been already mentioned, was distinctly Anthropological. But the

Biological Section, at the instance of certain Anthropologists, concurred in the endeavour of the geologists to obtain a continuation of the grant for the exploration of Settle Cave, and were successful in so doing.

On the whole, I may fairly conclude this report by saying that our Bradford Meeting, if not brilliant, was pleasant, peaceable, and enjoyable, and that a very fair amount of work was got through in the time occupied.

Dr. KAINES proposed, and Mr. STANILAND WAKE seconded, a vote of thanks to Dr. Beddoe for his communication, and it was carried unanimously.

THE ALLEGED IDENTIFICATION OF THE ENGLISH NATION WITH THE "LOST HOUSE OF ISRAEL."

BY A. L. LEWIS, M.A.I., Hon. Sec., L.A.S.

THE fact that this paper created considerable interest when read before a crowded section of the British Association at Brighton, would scarcely justify its being brought before this Society after this lapse of time, but that the country is still being inundated with fresh pamphlets, and is besides threatened with a magazine in favour of the "Identification," the value of which publications may perhaps be not unfairly judged from the statement advanced in the latest—with, of course, no evidence in support of it—"that the nation of America" (whatever set of people that term may refer to) "is positively identical with Manasseh."

With this apology, I give the paper in the form in which it was read at Brighton, with such additions as the fresh publications on the other side have rendered desirable.

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The evidence by which it is sought to prove that the English nation is descended from the lost tribes may be divided into two parts; one derived from the Jewish scriptures, and the other derived from various sources. To the first, I believe, I could give a complete reply, drawn also from the Old and New Testaments; but this I do not intend to enter upon here, because evidence from that quarter is not generally regarded as conclusive in scientific circles, and because I think that the evidence derived from other sources, with which science more generally deals, will be found sufficient for the purpose I have in view.

The theory under consideration starts with the assumption that the tribe of Judah differs entirely in all its characteristics from the other tribes, and that that which is applicable to the people whom we know as Jews is consequently not at all applicable to the lost tribes. I say the tribe of Judah because, although the fortunes of Benjamin

were linked with those of the elder tribe, the theory before us treats Benjamin as belonging to Israel, and even appears to suggest that nine tribes only went into captivity; thus losing sight of the fact that the number of ten was made up by the division of the children of Joseph into two tribes, those of Ephraim and Manasseh. Now, in considering this alleged difference, one great point that strikes us is that of physical type, on mentioning which we shall probably be told of light Jews in one place, and of red-bearded Jews in another place, and of Moorish and all other varieties of Jews in all manner of places, concerning which we have to say:—

1. *Physical Type generally.* The type of a race, though perfectly definable and constant in the mass, is always variable and uncertain in some of the individuals composing the mass; but, notwithstanding this, well-marked physical types do exist. The results of intermixture often lie dormant for one or more generations, and then reappear in some individual whose children again revert to the normal type.

2. *The Jewish Type.* The Syrian-Jewish type which we have among us at the present time is depicted without material variation on the Egyptian monuments, where it has been thought by some that Jacob and his sons are themselves delineated; and where, if so, they at all events present no marked difference from each other. The descendants of Jacob were, however, subject to great intermixture from the commencement. The wives of his sons were, it is probable, of various nations of Palestine, and, perhaps, of Chaldea. If of the former country, they doubtless presented (as do those figured on the Egyptian monuments) the same Syrian-Jewish type. Further intermixture took place in Egypt, and, on the conquest of Palestine and the capture of the females belonging to the subdued nations, a further infusion of the Syrian type took place; while, during the Assyrian and Babylonish captivities, further intermixtures must have occurred; and, when we add to these the crosses which must have taken place during the last 1,800 years with the various nations among whom Jews and Israelites have been cast, it is easy to see that it is quite possible for many who *profess* to be pure-blooded Jews to have very little of the blood of Jacob flowing in their veins, although the race has, as a whole, preserved itself unchanged for three thousand years. If, however (to give the theory before us the benefit of every possible supposition), we assume that the alleged difference between Judah and Levi and the other eleven tribes is due to intermixture with other races, we must also assume that, while one side has kept itself pure, and still presents the same type that it did in Egypt 3,000 years ago, all the intermixture has taken place on the other side; an assumption which, so far as it refers to the period during which they were in close contiguity and under the same ethnic conditions in their own country, is perfectly inadmissible. It is indeed suggested that Esther, who was of the tribe of Benjamin, was not recognised as a Jewess in the harem of Ahasuerus; but this, if true, proves nothing, as the other people of Palestine are believed to have been of much the

same type as the Jews ; or Esther might have had foreign blood in her veins. Joseph's non-recognition by his brethren is also alluded to, though we may suppose it is not intended to infer that his racial type had changed during his residence in Egypt. As he was seventeen when they parted, and forty when they met, it is not strange that his brethren did not recognise him in his unexpected position. He, however, recognised them. It may be mentioned here that the formation of the nose has been considered a more permanent Jewish character than the colour of skin, hair, or eyes. We are, however, now told that the physiognomy of the modern Jew was inflicted as a punishment for and at the time of the crucifixion. For this statement there is, of course, no evidence ; against it there is the evidence of the Egyptian monuments that the same physiognomy existed 3,000 years ago.

3. *The Anglo Saxon Type.* Volumes have been written upon this subject, and it is difficult to compress their contents into a single paragraph. The Angles, Saxons, Jutes, and other Low German tribes came here in various detachments, and found here a large Celtic and Gaelic population intermixed with Romans and Roman colonists from all countries, and the result has been an intermixture of the whole, a Scandinavian element being subsequently added. There is a considerable difference between the Scandinavians, Low Germans, and High Germans (the latter being represented by the Germans of the present day), and it may well be that that difference is largely due to a considerable Celtic influence on the two former. The Angles and Saxons appear generally to have been tall and fair, with broadish heads, whereas the typical Syrian Jew is of medium stature, long-headed, and dark. A liberal estimate will not allow the Angles and Saxons to form more than one-half of the ancestry of the inhabitants of Great Britain, and, if they were Israelites, they would have come here so adulterated by the intermarriages contracted during previous wanderings that our "Israelitish origin" would scarcely be sufficiently pure to entitle us to any of the advantages promised to the seed of Jacob. The theory, however, seeks to evade this difficulty and others by declaring all the various races of which our population is composed to be only various tribes of Israel, a suggestion which shows what ridiculous hypotheses are necessary to a consistent belief in the theory.

It has been thus shown that the Israelites and Jews must be held to have resembled each other until the period of the captivity of the former, and that twelve hundred years later the Angles and Saxons presented an entirely different type to either.

The tribes forming the kingdom of Israel were carried away into Assyria by the king of that country about 721 B.C., although many of the people appear to have been left behind, as we find Hezekiah sending to them afterwards to join him in keeping the passover ; still the greater part was carried into captivity, and, according to the theory before us, this part is last traced into Media about the seventh century B.C., while the Anglo-Saxons are traced back to the same

place, at the same time, and must therefore be the same people. Now, if the premises were true, the *non sequitur* of the conclusion would be sufficiently obvious, as it would be much more likely that the Anglo-Saxons were pushed out to make room for the Israelites than that they were the same people; but we are by no means prepared to admit that the Anglo-Saxons can be traced to Media in the seventh century B.C. Those who have given any attention to early British history know that it is a matter of the greatest difficulty to ascertain who the Anglo-Saxons were, or where they were in the third or fourth century *after* Christ, and that to trace them back for another thousand years is utterly impossible. It is indeed suggested that the Saxons are the same as the Sacæ or Scythians, but Mr. Howorth, whose labours in the intricate history of those races, conducted with all the assistance which modern discoveries can give, are well known to us all, has told us at Liverpool that this is not the case; and we may therefore pass over an alleged derivation of Sacæ from two Sanscrit words, *saka sunya*, signifying "destitute of origin."

By some of the identifiers the lost tribes are held to be the Massagetæ and Getæ of Herodotus, who, it is suggested, afterwards became the Angles and Saxons; and it will therefore be well to consult Herodotus on the subject. Speaking of the Massagetæ he says (Clio ccxvi.), "As for their manners every one marries a wife, but they lie with those women in common, and the Grecians mistake when they attribute this custom to the Scythians, which is peculiar to the Massagetæ, among whom, whenever a man desires to have the company of a woman, he hangs up his quiver at the head of his chariot and uses her without shame. The years of life are not limited by any law, but after a man has attained to old age all his relations meet and sacrifice him with cattle of several kinds, and when they have boiled all the flesh together they sit down as to a feast. This death they account the most happy, for they never eat the bodies of those who die by sickness, but bury them in the earth, and think it a great misfortune that they did not attain to be sacrificed. Their drink is milk, and they sow nothing, contenting themselves with the flesh of animals and fish, which the river Araxes yields in abundance. They adore the sun only of all the gods, and sacrifice horses to this deity, judging it most proper to offer the swiftest of all animals to the swiftest of all the gods." Of the Getæ and of their deity, Zalmoxis, who is identified with Moses, Herodotus says (Melpomene xciv.), "They think themselves immortal in this manner; they imagine that the man who ceases to live is not dead, but goes to Zalmoxis, accounted by some among them to be the same with Gebeleizis. Every fifth year they elect a person by lot and send him to Zalmoxis, with orders to let him know what they want. This messenger they dispatch thus: Certain persons are appointed to hold three javelins erected, whilst others, taking the man they are to send by the hands and feet, throw him up into the air that he may fall down upon the points. If he is pierced and dies, they think the god propitious; if not, they load him with reproaches

and, affirming he is a bad man, send another, whom they furnish with instructions while he is yet alive. These Thracians, in time of thunder and lightning, let fly their arrows towards the heavens and threaten their god, whom they think the only deity." Now, though we might well believe the Angles and Saxons, from all we know of them, to have been guilty of even worse practices, these were not even Anglo-Saxon, and most assuredly were not Israelitish customs, and we must, therefore, to follow one of the "identifiers," imagine that in much less than three centuries the Israelites had lost all knowledge of their origin, and had adopted these particularly un-Israelitish customs; while, on the other hand, another "identifier" maintains that it was not till the Christian era that the Israelites entirely lost their hold on the Mosaic religion; so that, if we follow him, it is evident neither Getæ nor Massagetæ could have been Israelites.

To support the theory before us, however, we find ourselves, under any circumstances, obliged to believe that the Israelites went into Media with one racial type and came out of it again as Anglo-Saxons with another totally different type; that they went there circumcising and came away not circumcising; that they went there polygamists and came out monogamists; and, in short, that they went there with a certain language, certain customs, traditions, and characteristics, and came out with all these things entirely altered and recast in a mould which twelve centuries more and all the intermixtures which are matters of history have not been able entirely to obliterate. This would seem to require a suspension of the laws of nature for which there is not only no evidence, but no *raison d'être* apart from the exigences of the theory before us. The best of the matter, however, is yet to come.

The Israelitish Scythian Anglo-Saxons were, we are told, in the days of the Apostles wandering in the north-west of Europe and Asia, in which localities are situated (according to the theory) Cappadocia, Galatia, Pamphylia, Lydia, Bithynia, Illyricum, Mysia, Achaia, Thessaly, and Macedonia, to which places the Apostles went in search of them, in order that the words of Christ, "I am not sent but unto the lost sheep of the house of Israel," might receive the most precise fulfilment. Seeing that when the Angles and Saxons arrived here they were rank pagans, and did their best first to uproot the Christian church, which they found established among the Celtic Britons, and afterwards to bring it under the Papal yoke, it is to be regretted that the Apostles should have confined their labours to such unremunerative subjects. We were, moreover, under the impression that Paul and Barnabas were recorded to have said, "Lo, we turn to the Gentiles" (Acts xiii. 46), and that well-authenticated tradition at least testified to the labours of other Apostles in quite different localities.

It is, it seems, part of the happy destiny of Israel that the aborigines of any country it may take a fancy to die out before its advance; but, as the Welch obstinately refuse to recognise this provision of Providence, and, so far from dying out, seem determined to overrun the rest of Britain if possible, it has been discovered

that it would be an easy matter to prove that the Welch are not the representatives of the ancient Britons, but of one of the missing tribes which arrived here before the others. Similar circumstances have led to the discovery that the Brahmins are the descendants of Abraham and Keturah; while the alleged, but doubtful, fact that the aborigines of other countries do not die out before Germans is held to be a proof that the Germans are not Israelites; indeed, it seems to be part of the theory that they are Assyrians or Moabites.

It is one of the Anglo-Saxon Israelitish privileges never to be defeated, so says the theory, but it happens that the Anglo-Saxons were unquestionably defeated at Hastings; and it is therefore stated that William the Conqueror's army was not, as we have hitherto believed, composed of the descendants of Scandinavian pirates mixed with Bretons (largely descended from Britons), and of natives of other parts of France, but was no less than the tribe of Benjamin, which had turned Christian *en masse* before the destruction of Jerusalem, and, having escaped from the city beforehand and taken shipping to Italy, had occupied the intervening thousand years or so in working its way into Normandy. Of course no evidence is, or can be, furnished in support of this astounding statement, except a passage from Jeremiah, which has no reference to the subject whatever; but we think that something might have been made of the remarkably brotherly manner in which the Benjaminites convinced their erring brethren of their folly in opposing the decree of Providence by which they were so happily reunited.

Some alleged points of resemblance between the Israelites and the Anglo-Saxons are, however, brought forward; such as burial in cists covered by tumuli, a custom common all over the world, and which was much more common among the Celts than among the Anglo-Saxon population of Britain. The Saxon *civil* division of hundreds is also thought to resemble the Israelitish division of tens, fifties, hundreds, &c., which as a military division was common also to the Romans and, probably, to other peoples, and which is certainly not now maintained among ourselves in any form. A further resemblance is traced in the support of the priesthood by tithes; but the Druids were an established priesthood, and, according to Mr. Morgan, were supported by tithes, and there is much reason to believe that the notion of an established church, many of our rites and ceremonies, and, perhaps, some of our doctrines, were derived directly from the Druids. Elective assemblies and election of the person who should reign from among the governing family also existed among the Celts, as did the reckoning of the day as beginning with the preceding evening; while the census was adopted in Greece, by Solon, 638 B.C., and in Rome 566 B.C., and other points mentioned were common both to Celts and Romans. Of course it is useless to bring forward as proofs of identity points of resemblance which are common to other peoples.

With reference to polygamy, it will no doubt be said that the Jews do not now practise it, but this we apprehend is on account of the laws of the countries in which they live; whereas the Angles

and Saxons had the making of their own laws, notwithstanding which they were never polygamous. The Beni Israel of India, who claim descent from Reuben (a living proof of the *general dispersion* of Israel), do, however, practise polygamy to a certain extent. Allusion is made to architecture and the Gothic arch; but the Saxons possessed no school of architecture of their own, that which we call Saxon or Early Norman being debased Classic, and the Pointed Gothic having been introduced from the East during the crusades. Our military formation, also alluded to, has varied in all ages as the various novelties of offence and defence have required. Mr. Wilson says the Anglo-Saxon formation was triangular, but the Israelites in marching through the wilderness formed a square (see Numbers, chap. ii.). Our common law, also alluded to, is based not so much upon a Saxon as upon a Roman-British foundation, as are many other things which are commonly attributed to "our Saxon ancestors;" from whom indeed we inherit little worthy of preservation. The Frisians, who resembled the English more closely than the other Teutons, permitted the father to expose a new-born infant or kill it, provided it had not sucked its mother's breast; and the Teutonic respect for women, on which one identifier dwells, permitted them to buy their wives and sell their daughters, though not to prostitution; they also murdered slaves, to be buried in their graves, which was not an Israelitish custom.

Another identifier, though hitherto unknown to fame, modestly says, "I do not believe any living man has seen so many different people or walked so much as myself;" but, while one set of "identifications" concern the Angles and Saxons, this gentleman's "identifications" relate to the Cornish people, who differed from the former in race, language, &c., most essentially. Now, that many remains, both of material objects and of customs, &c., having a strong Hebrew affinity are to be discovered in Cornwall may be admitted, without going so far as to say that the Celtic Cornish language "was a broken Hebrew;" but these remains are neither Angle, Saxon, nor Hebrew, but Phenician, the difference between the Phenicians and Hebrews being but small, and the Phenician influence in Cornwall almost a matter of history. To the Phenicians also may probably be attributed the introduction of Baal-worship, remains of which even still survive among us; while other distinctly Hebrew ceremonies, &c., were probably adopted by the early Christians from the Old Testament scriptures. With respect to engineering and metal working, also adduced as proofs of identity, it is by no means clear that the Israelites ever excelled in them; and it is only within the last century that England has taken so prominent a position in them; while a casual inspection of a list of so-called Israelitish surnames shows that many of them can be traced with equal facility and greater probability to other languages, and that the rest have probably been taken of late years from the Scriptures themselves, surnames being of comparatively recent introduction. Such names as John, Joseph, Peter, Paul, David, Anna, Mary,

Elizabeth, and others are also quite as common among other European nations as among ourselves.

There are still one or two witnesses who have been summoned by the "claimant" in this case, and who must be cross-examined. The first of these, in age and dignity, is the Great Pyramid; it being asserted that the Anglo-Saxon measures of capacity and length correspond with those furnished by the dimensions of the Great Pyramid and of the sarcophagus inside it, which, for the purposes of the theory, are assumed to be Israelitish, and not, as one would suppose, Egyptian measurements. This assumption is about as well grounded as the very remarkable statements next made: that previous to the erection of the Great Pyramid no stone building existed at all; that it stands in the exact centre of the land surface of the earth, including America, Australia, and Japan; and that, although the distance from the earth to the sun is not finally determined by modern astronomers, it is precisely indicated by the height of the Pyramid.

The last witness to be examined is the stone which Jacob set up at Bethel, and which Jeremiah or some other prophet is alleged to have brought by sea to Ireland, together with the tribe of Dan and the daughters of the King of Judah, and which, after being carried to Scotland and used as a seat for the kings at their coronation, has found a resting-place in Westminster Abbey. Of course, it strikes us as being curious, to say the least, that, if this stone were so much valued as to be carried away by the tribe of Dan in a hurried flight to an unknown country, nothing should be found concerning it in Scripture from the time that Jacob set it up. It also strikes us that, in whatever direction the tribe of Dan went on the breaking up of the kingdom of Israel, it must have started more than a century before Jeremiah and the king's daughters and the rest of the remnant of Judah went to Egypt or returned from it, if indeed they did return; so that it is to be feared that the journey of Jeremiah with the princesses of the house of David to Ireland, and the marriage of one of the princesses with an ancestor of the kings of Scotland and of her present gracious Majesty, must be considered quite as apocryphal as that other tradition which makes the Scotch monarchs descend from Scota, a daughter of Pharaoh, and a Grecian prince who emigrated to Ireland with a multitude of Greeks and Egyptians. With respect to the Coronation Stone we are told that the citizens of London in the middle ages considered it worth fighting for; which, of course, proves nothing whatever respecting its origin. The fact is that in former ages people were much given to carrying stones about for no possible virtue that can be discovered in them at the present day. Thus, at Stonehenge, and other places of the same character, many of the stones are considered to have come from a long distance, while we have at Kingston-on-Thames a Saxon coronation stone. And we have also the celebrated London Stone itself, with a pedigree quite as respectable, and nearly as long as, and much less improbable than, that of the stone at Westminster; it being alleged to have been the

pedestal of the Palladium at Troy, brought here by Brute, and set up in his city of Troynova, now called London.

I believe that I have now said enough to show how ridiculous in the eyes of Anthropologists this Israelitish Anglo-Saxon theory must necessarily be; and, if I have not gone further into the matter, it has been because I have thought a mere statement of the theory to be almost a sufficient refutation of it. Lest, however, it should be objected that I have demolished the only possible manner of accounting for the ten tribes, I would suggest that there is no reason for supposing that they are all in a body together, but that, on the other hand, they are probably scattered about in Asia much as the two tribes are scattered about in Europe. Of course, this view can neither be proved nor disproved without a tribal census being taken all over the world, which is not likely to be done just yet; but if meanwhile people will only accept it provisionally, it will certainly save an immense amount of time and stationery which is being continually wasted in speculations as to the whereabouts of the lost tribes.

DISCUSSION.

The thanks of the Meeting having been voted to the author,

Mr. W. CARPENTER (author of the "Israelites found in the Anglo-Saxons") said he would not—indeed, he could not—attempt to answer the paper then and there, whatever he might do if he had it before him with the books necessary to enable him to point out and dissipate what he believed to be utter fallacies and false inferences. In point of fact, however, Mr. Lewis had adroitly cut the ground from under those who, like him (Mr. C.), believed in the identification of the Israelites, or a part of them, with the Anglo-Saxons. He cast aside altogether the Scripture evidence of that identity; but that was his (Mr. C.'s) strong ground. He for one would not be content to rest the question upon the evidence of secular history and geographical tests alone. If he had found nothing beyond that, he (Mr. C.) would not have been of the number of those against whom Mr. Lewis's paper was directed. He frankly admitted that profane history alone was not conclusive of their theory; but, when they looked into the Old Testament scriptures, and compared what they there found about Israel—that is, the ten tribes—with the fragments of secular history they could refer to, he believed their position to be, as he had said, unassailable. The description given of Israel or Ephraim in these scriptures, of what these people were to be and to do, in these latter days, he believed to harmonize exactly with the characters of the Anglo-Saxons—descendants of the Gætæ or Goths—and the work assigned to Israel to have been accomplished, or to be in course of accomplishment, in its minutest detail, by the Anglo-Saxons, and by no other people in the world. As he had said, however, he could not attempt to review Mr. Lewis's very discursive

and well-written, but—he must add, hoping not to give offence—very shallow paper, upon a subject which required a much more careful handling than he thought that gentleman had given it.

Dr. CARTER BLAKE observed that Mr. Lewis's paper, with which he agreed, merely dealt with one of the branches of the Hebro-European theory. The erroneous proposition which included that and other speculations, for which we were perhaps originally indebted to Baron Bunsen and Prof. Max Müller, but which Prof. Haeckel had lately crystallized into a tangible form, was that any migration of the greater races could be shown from east to west, any more than *vice versa*. When this theory was once rejected it would be unnecessary to look for the ancestors of the Basques amongst the Ugrians, or the progenitors of the Goths amongst the Massagetæ or the Jews. Ireland, which had been termed "Innis-fail," from the possession of Lia-fail, or "Stone of Destiny," had especially been exposed to speculation. Whether there was ever in Ireland any stone more sacred than that of Blarney might after the researches of Professor A. C. Ramsay on the so-called "Scone Stone," be doubted. If it were required to apply the *reductio ad absurdum* to the Hebro-European theory, he might refer to recent speculations in which Mr. Carpenter's theory was exaggerated, and in which Eden and Edinburgh, Terah (father of Abraham) and Tara (Ireland), Midian and (county) Meath, Peleg and Pelasgus, Gebal and Ghibeline, were identified. Mr. Lysons had gone very far in his argument to prove that the early Britons were Jews, but not quite so far as this. He (Dr. Carter Blake) did not think it necessary to assume as a postulate the migration of any great race from any particular locality. A certain ebb and flow might take place. The Celtic area in Western Germany might have been diminished by Franks and Teutons. The Teutonic area might have suffered by the incursions of the Celtic Boii, but that hardly affected the general distribution of races of which there was little evidence of change during the past two thousand years.

The Rev. J. G. TIPPER said: I fear we who hold the view of our Israelitish origin have justly laid ourselves open to criticism by the writings of a very clever and earnest young man whose publications on the subject have had a very large circulation. But the real apostle of the school is not that gentleman, but the late John Wilson, author of "Our Israelitish Origin" (Nisbet); while for such views as have been the principal subjects of Mr. Lewis's objections, such as the tribe of Dan coming over to Ireland when the "Stone of Destiny" was brought there, the disconnection of Benjamin with the Jews (or tribe of Judah), &c., the gentleman alluded to, Mr. Edward Hine, is alone responsible. I feel great diffidence, as a visitor, in presuming to speak before the Anthropological Society on this branch of the subject, and yet, in reference to the difference of form and feature between the Jews and the Germanic races, I would venture to submit that, even if those differences were greater than they really are (for after all they are

very trifling), that which is of greater importance than the shape of *noses* is the shape and size of *skulls*. Whoever the ten tribes may be, they must belong to the same general race as the Jews. I suppose we may divide mankind into three grand classes—Caucasian, Negro, and Calmuc-Tartar, the probable representatives of the three sons of Noah. The Jews belong certainly to the Caucasian race, but *so do the English*; and what is very unusual in that race, the skulls of both Jew and Saxon are also *of the same size*, the largest development consistent with good proportion. Of course, if we are Israel, we must have our particular tribes; but—beyond fancying that we English are Ephraim because in our colonies we have become a “multitude of nations,” and have fulfilled other prophecies spoken in connection with that tribe, and that the Danes may be Dan from their name and the facility with which as “abiding in ships” they might have escaped thereby to their present position—we do not presume to particularize in this respect, but leave the development of that to time and the action of a higher Power. It has been remarked that there have been no migrations on a large scale of the human family; but these ten tribes, not being in Palestine, must have migrated *somewhere*, and, according to Scripture, in numbers too great to be in a corner. In evidence, besides that of Sharon Turner, that our race came from the place of Israel’s deportation—the shores of the Caspian and North Media—I may mention that a few weeks ago, when at Strasburg, and opening this subject to Professor Wäthrich, the Roman Catholic chaplain to the German forces in Alsace, he said: “It is very extraordinary, but the fact is years ago I wrote a book on the early history of the Gothic nations, and traced them back eastward to the south-west banks of the Caspian Sea. I showed the work to a Professor at Bonn, and he made the remark, ‘Why, you would make them out to be the lost tribes of Israel!’ This,” he added, “I laughed at as a good joke at the time.” I feel the impossibility, on the present occasion, of entering upon any full particulars in opposition to the very interesting paper read by Mr. Lewis, which, I cannot help admitting, is the most carefully written and plausible attempt to refute our Israelitish origin which I have yet heard; but it might, I venture to fancy, startle the members of this learned body to see the immense body of evidence which could be adduced in favour of the view.

Mr. M. J. C. BUCKLEY said the Irish and other Celtic traditions which relate to the Coronation Stone now in Westminster Abbey ought not to be rejected as mere myths; because these traditions have been so universally believed by all the Celtic nations, and seem to be founded on some rational basis. They require a critical examination and sifting. Long before the time of St. Patrick the Eastern origin of this stone was handed down as a fact in pagan Ireland; in fact, the island itself takes one of its names from the stone. This name, “Inis-fail,” or the “Island of the Destiny Stone,” is coeval with that of Erin. Then, if we examine the stone itself, we see that its formation closely resembles that of

the Syenitic granite or stone, of which so many of the early Egyptian monuments and statues are formed. This stone stands pre-eminent before all the other stones, or similar monolithic symbols of Ireland, from the circumstance that it was regarded as the national Palladium.

The PRESIDENT said Rabbi Ben Israel, in consequence of some remarks of Montesinos, tried hard to prove that the Americans were descended from the ten tribes. Cabrera of Guatemala, and Vega of Chiapa, laboured to show a relationship between the Americans and the Phœnicians, and Lord Kingsborough also traced the red man to the Jews. Again, Olaus Rudbeck placed the garden of Eden in Lapland, whilst Högström was not satisfied with tracing the language of the Laps to the Hebrew, but endeavoured to show that the Laps themselves are of Jewish origin. Sharon Turner derives the name of the Saxons from *sakai suna*, sons of the Sakai, *i.e.*, the Sacæ, a Scythic people mentioned by Strabo and Pliny; others respectively, from *Saces*, their supposed original settlement on the Indus; from German *sassen*, "settled," in contradistinction to the German nomadic tribes; from *sass*, a planter; from *seax*, a short sword which they carried; or from *schuch*, robbery, as indicative of their pursuits. If absolutely necessary to show that the British people are descended from the Jewish nation, we might call in aid philology, and prove that some of the most ancient geographical names in England are of Hebrew origin. Thus, among many other names, the rivers Nar and Yare in Norfolk, and the Yare in the Isle of Wight might be traced respectively to the Hebrew *nahar*, and *iar* (Coptic *iaro*), a river, and Yarmouth might be compared with Yarmuth, a town in the tribe of Judah. Indeed, according to Bechart, the name of "Britain" was from Punic *barat-anac*, "land of tin." There is of course no real pretence for such etymologies.

Dr. KAINES, Mr. C. STANILAND WAKE, and Mr. G. TOMKINS, also took part in the discussion.

Mr. LEWIS said, in reply to Mr. Carpenter, that although, for the reasons indicated, he had not discussed the alleged Scripture evidence, he had consulted every reference himself and found that evidence to be as irrelevant as any they had been discussing. He might, perhaps, be permitted to say that the great error the "identifiers" made was in expecting the Israelites to do and to be in exile what their own prophets uniformly said they were to do and to be on their return to their own land. Mr. Tipper had in the most manly and straightforward manner disavowed the absurdities of Mr. Hine (who had been invited to attend the meeting and defend them, but had not done so), but he (Mr. Lewis) looked upon those absurdities as being only the logical sequence of Mr. Wilson's views. Mr. Tipper's division of the human race scarcely harmonised with itself, for the Egyptians and Canaanites, who were alleged to be descendants of Ham, had much more in common with the Jews than with the negroes; and, as to skulls and noses, the latter, appearing as they did in the same peculiar form on Egyptian monuments

3,000 years old, and in living subjects at the present day, were of the greatest importance. The typical Teutonic skull was, moreover, certainly much broader than the Jewish, which more resembles some of the Celtic skulls. He believed that he had noticed in his paper all the evidence that had been brought forward from secular sources in favour of the theory, and it appeared to him to be utterly valueless. The history of the "Lia-fail" could, no doubt, be traced for perhaps 2,000 years, and it might possibly have come from the East, but more than this could not be said of it. Mr. Buckley had stated it to be of Egyptian granite, but other authorities said it was sandstone.

The following paper was then read by the Author:—

MARRIAGE AMONG PRIMITIVE PEOPLES.

By C. STANILAND WAKE, V.P.L A.S.

AMONG the causes which with savages prevent or check the action of sexual selection, Mr. Darwin has given the first place to the practice of so-called communal marriage. As we shall see, Mr. Darwin does not himself believe that this was the condition of primeval man; yet, judging from certain evidence, which it is my object to consider, he appears to admit that "the habit of marriage has been gradually developed, and that almost a promiscuous intercourse was once extremely common throughout the world."

The evidence which has led to this admission is of two kinds—direct and indirect. The former is that furnished by the presence among existing uncultured peoples of unrestricted intercourse between the sexes; while the latter is derived from the existence of certain customs which it is thought can be explained only by reference to such a social condition, and on the assumption of its having been at one time universally prevalent. The direct evidence has the disadvantage that it is simply useless for the purpose for which it is cited, unless it can also be shown that man in primeval times *must*, by virtue of the operation of certain laws, either of human progress or of natural existence, have lived in the condition supposed. In the absence of this proof, the direct evidence can do nothing more than show that certain existing savages do allow promiscuous intercourse between the sexes. That such a practice is occasionally to be met with among uncultured peoples is probably true, although I can find nothing in the facts cited by Sir John Lubbock* to support the conclusion that it is either general or ancient. Mr. Darwin,

* Many of these exhibit only a modification of the Hawaiian custom of *Pinalua*. "Adoption" has really no relation to communal marriage, nor has the custom of supplying guests with temporary wives.

indeed, says that, although those facts show that the licentiousness of many savages is astonishingly great, yet that "more evidence is requisite before we fully admit that their existing intercourse is absolutely promiscuous."

If it were granted, however, that such a conclusion is fully established, before any inference could be made from the facts relied on as to the marital habit of primeval man, it must be proved that the peoples who are supposed to practice communal marriage are his nearest representatives. In the absence of this proof, it is possible that promiscuous intercourse between the sexes may be due simply to the loosening of the moral ties recognised by man at an earlier epoch, resulting in a condition of unrestrained licentiousness. This is the more probable, since great freedom of sexual intercourse, both before and after marriage, is quite consistent with the full recognition of special marital relationship. When the Polynesian Islands were first visited by Europeans, unchastity in an unmarried woman appeared to be treated very lightly by their inhabitants. The same was true of many of the American tribes; but, nevertheless, among all of them marriage was fully established. According to Mr. Day, the Mincopies of the Andaman Islands ascribe maiden reserve to selfishness and pride, but they universally practise marriage; and it would seem that most of them are monogamists. Other peoples look upon unchastity in an unmarried woman as a proof of attractiveness, and the girl who has the greatest number of lovers is the most eagerly sought after as a wife. This, however, supposes the existence of actual marital engagements, and in most cases probably the freedom before marriage is intended to supply evidence of capacity for that which gives marriage its great value, the bearing of children. Such a state of sexual morality is not unknown to our own country, in various parts of which a woman of the labouring class has little chance of marriage until she has given signs that she is capable of becoming a mother. But, as a rule, the people who give so much freedom to women until they are married strongly object to post-nuptial irregularities on their part, and, indeed, the women themselves are by no means noted for being given to intrigue.

The explanation of these phenomena no doubt partly depends on the fact that woman is viewed among such peoples as a kind of property. While unmarried, a girl in some sense belongs to herself, although the power of selling her as a wife is vested in her father or other nearest male relation. After marriage she belongs wholly to her husband, and she cannot dispose of her person without his consent. Hence the severity with which a woman's adultery is usually punished; not owing to any sense of moral impropriety in the act itself, but from its interference with the rights of the husband. This is shown by the fact that sexual intercourse with another man, if consented to by the husband, is considered not merely innocent but praiseworthy. Those who judge of sexual morality by the modern European standard will be surprised to find how widely spread is the custom of exchanging wives or of offering a wife or a

daughter to a guest. The former practice was one of the chief blots noticed by Engede in the character of the mild Greenlanders, and it is probably almost general among the American tribes. We can hardly doubt that the latter custom—which is part of the hospitality so distinctive of uncultured peoples—was at one time universal. It would, nevertheless, be absurd to cite either of these customs as evidence of a former condition of promiscuous intercourse between the sexes. They are simply exercises of the rights of property, which a man claims over the women of his household as freely as over any of his goods and chattels.

It is clear that, if the former existence of a general condition of communal marriage is to be established, it must be by indirect evidence; and a careful examination shows that this is much less strong than Mr. Darwin seems prepared to admit. Mr. McLennan says that relationship through females is the most ancient system of kinship, and that in nearly every case where relics of this system are to be found traces of polyandry also remain. Moreover, as polyandry is merely a modification of promiscuous intercourse between the sexes, and as all races were originally polyandrous, such a social condition must in primitive times have been universal. Mr. McLennan has probably assigned the right position to kinship through the mother, and a modified polyandrisim is associated with that custom among the peoples who possess the simplest form of the classificatory system of relationships. I shall show, however, that neither this system nor polyandry itself requires the pre-existence of communal marriage. Moreover, Mr. Morgan, who is equally of opinion that promiscuous intercourse between the sexes was at one time universal, considers polyandry to be of comparatively recent introduction.

Sir John Lubbock, judging from the nomenclature used among uncultured peoples, as shown by Mr. Morgan's tables, affirms that relationship was originally merely tribal, no kinship between parent and child having been recognised, and that communal marriage is required to account for such a circumstance. Of the actual existence of tribal relationship in the sense intended by Sir John Lubbock, who does not sufficiently distinguish between the tribe and the clan, there is but little, if any, evidence. Moreover, Mr. Morgan has shown conclusively that *clan* kinship (or that of the tribe, in his phraseology) will not account for the existence of the classificatory system. But Sir John Lubbock thinks that an early condition of promiscuous intercourse between the sexes is required to explain the prevalence among numerous peoples of *exogamy*. He supposes that, as the women of the tribe belonged to all the men in common, no man could have a wife to himself unless he captured a woman from another tribe. This implies that forcible marriage and exogamy are co-extensive, which is not the fact. The former has relation rather to the tribe than to the clan; and, whatever may have been its origin,* that of exogamy would seem

*This I have shown in a separate paper ("Marriage by Capture").

to be simple enough. Probably among all uncultured peoples marriage within the clan is forbidden. When, therefore, a tribe consists of only one clan, or, what is the same thing, of persons having a common family name, its members must form alliances with those of another clan. Usually, owing to the operation of the rule that the children take the name of their mother, a tribe consists of several clans, in which case only a modified exogamy is practised. But, if by any means the clans separate and form distinct tribes, pure exogamy would be absolutely necessary, unless the old marriage restrictions were abolished; and, if wives could not be obtained amicably from a neighbouring tribe, they would be taken by force. Exogamy is, thus, a natural consequence, under certain conditions, of the operation of the rule that relationship is to be traced through the mother. No doubt it has been aided by other circumstances, such as the positive scarcity of females, caused by infanticide, or the comparative scarcity resulting from polygamy, but these are subsidiary causes, and have to do with forcible marriage rather than with exogamy proper.

We have seen that Sir J. Lubbock's idea of the former prevalence of communal marriage is derived chiefly from the existence among the lower races of mankind of the curious system which classifies all relations in grades. Mr. Morgan himself, while rejecting the tribal explanation of that system, still traces it to the primitive practice of promiscuous intercourse between the sexes. He says that it can be explained only by reference to a custom of marrying between brothers and sisters, if not between father and child, and that these require a still earlier condition of promiscuity. If Mr. Morgan is right on the former point, he is probably equally so on the latter, and I propose now to endeavour to furnish an explanation of the classificatory system which will not require any of those customs. Such an explanation is the more requisite, since, as Mr. Darwin says, the indirect evidence in favour of the former existence of communal marriage rests chiefly on the nomenclature employed in that system, in accordance with which in its earliest phase all the members of a particular grade stand in exactly the same relation to *ego*, whether their affinity to him is lineal or collateral; the terms son and daughter, brother and sister, father and mother, being applied indifferently, according to their sex, to every individual in the grade to which he or she belongs.

Mr. Morgan supposes that primeval society passed through certain phases, the earliest of which was, as already stated, marked by the absence of all marriage; the second by marriage or cohabitation of brothers and sisters, giving rise to the communal family, and resulting in the first or "Malayan" form of the classificatory system. When the tribal, or rather clan, organization was added to the communal family, the American or Ganowanian and Turanian systems were developed, to be followed by the marriage between single pairs, which Mr. Morgan asserts is at the root of the descriptive system of relationships. It is at still later stages that *polygamy*, giving the patriarchal family, and *polyandry*,

leading to the family of the civilized social condition, make their appearance. Such is a concise *resumé* of Mr. Morgan's explanation of the curious phenomena under consideration; and there can be no doubt of its sufficiency, as the following considerations show. If several brothers have their wives in common, all the children born must be treated as equally related to each of them, and so must all the children of such issue. Moreover, all the issue of a man's sisters may be thus treated, since Mr. Morgan's assumption requires that brothers and sisters cohabit. The children, therefore, of each of the individuals standing in the relation of brothers and sisters are equally related to every one of such individuals, and also to each of their more remote issue and of their ancestors. As Mr. Morgan says, "all consanguinei are either fathers or mothers to each other, or brothers or sisters, sons or daughters, grandparents or grandchildren." The only case in which an exception might be expected is where a brother has other wives besides his sisters, the children of these outside marriages being only step-children to the sister-wives. Such a relationship not being yet recognised, however, the step-children would naturally fall into the general category of sons and daughters.

But, however sufficient, Mr. Morgan's explanation, owing to the assumption it requires, is far from satisfactory. It has already been shown that there is little, if any, evidence of a former general prevalence of a condition of communal marriage. Nor is there positive proof of a general system of cohabitation between brothers and sisters. Mr. Morgan refers to certain marriages of that character mentioned in history as furnishing evidence of an ancient custom rather than as "a lapsed condition of private morals." I cannot, however, accept this opinion. Such marriages, although they have been allowed for special purposes or under special circumstances, appear to be altogether exceptional, and I much doubt whether it can be established that among any existing people, however uncultivated, marriage between a brother and a sister of the full blood is permitted. That it has not been practised with the races possessing the classificatory system of kinship, from at least an extremely early date, is rendered almost positive by the fact that the relationship of brother and sister was the very first to be recognised by them in a concrete form. This would seem to show that a special relation was from primeval times thought to subsist between the son and daughter of the same mother; and we may well believe that such an idea would prevent the marital connection between them. It is very different, however, where a man and woman, although having the same father, are born of different mothers. In such a case the ideas which are at the foundation of the classificatory system would not operate to render unlawful a union between the persons thus related. In accordance with this fact, we find that marriage between half-brothers and half-sisters has been customary among peoples of all degrees of culture, even with the Hebrew patriarchs themselves, as shown by the case of Abraham and Sarah. Probably among the Egyptians and other

peoples of antiquity, as also in Mexico and Peru, the royal princes sometimes intermarried with their own sisters. But when we remember the importance attached by the ancients to the preservation of the royal blood in a condition of perfect purity, we see how easy it would be for the liberty to marry enjoyed by relations of the half-blood to be extended, under certain circumstances, to those of the full blood. This is said to have been practised in the Sandwich Islands for the purpose of preventing competition to the throne; and such a custom would be the less difficult of observance among a civilized people in an age when the royal race were looked upon as sacred.

Mr. Morgan, however, refers to the existence among the Sandwich Islanders of traces of a custom called *Pinalua*—according to which two or more brothers with their wives, or two or more sisters with their husbands, lived in common—as evidencing a prior condition of promiscuous intercourse, with cohabitation between brothers and sisters. But why the fact of two brothers and their wives living in common should presuppose the intermarriage at an earlier period of brothers and sisters, and communism in their sexual relations, I cannot understand. It is evident, on consideration, that the two customs are totally distinct, and that, while the former is perfectly consistent with the general rule as to marriages founded on the incapacity of such a relation being established between persons bearing the same family or clan name, the latter is utterly opposed to it. There is nothing in the rules of marriage to prevent a man from marrying several women, whether sisters or not, of a different clan from his own; and such a custom is, in fact, common with the North American tribes, in many of which a man can claim all the sisters of his wife as they reach a marriageable age. But if, instead of this, each of several brothers (they being equally entitled, supposing them to have married the eldest daughter, to claim all the younger ones) were to marry one of the daughters, there would be nothing extraordinary in their having the several sisters as wives in common. The same reasoning will apply to the case of several sisters living with their husbands in a quasi condition of communal marriage. These customs may at one time have been general, and I believe that they furnish the true explanation of the relics of polyandry which have been traced so widely, that Mr. McLennan supposes all races to have passed from a state of promiscuity into one of polyandry. But the marriage between brothers and sisters, which the Hawaiian custom is thought to presuppose, stands on a totally different basis; seeing that such persons, as bearing the same clan name, belong to the same family, and their intermarriage would, therefore, be opposed to what we shall see is the most important principle operating in that system.

Not only, however, is Mr. Morgan's explanation of the origin of the classificatory system of relationships unwarranted by the facts of social life among primitive peoples, but it is not necessary. Mr. Morgan points out that the unit of organization among the American aborigines—and the same is doubtless true of all other

uncultured peoples in a natural condition—is the *tribe*, or what should rather be called the *clan*, all the members of which are connected by blood, and in some sense constitute a single family. Even in China at the present day the same system exists. The term used to denote the Chinese people in general is *Pih-sing*, meaning “the hundred family names,” and in some parts of the country there are large villages all the inhabitants of which bear the same name, answering exactly to the clan of yet uncultured peoples. Moreover, in China, as in Japan, persons having the same surname are not allowed to marry; thus the inhabitants of such a village have to obtain wives from beyond its boundaries. It is not necessary to multiply instances to prove the wide extension among primitive peoples of the prohibition of marriage between members of the same clan. According to Mr. Morgan, the regulations against the intermarriage of consanguinei are very stringent in most of the American-Indian tribes; and similar regulations are in use among the aborigines of Australia and the Polynesian Islands. The clan to which a man belongs, and with a member of which he cannot intermarry, is among primitive peoples usually that of the mother. Mr. Morgan supposes descent in the female line, which would follow from children bearing the clan name of the mother, to have been at one time universal among the Ganowanian family, although in many tribes descent is now restricted to the male line, and it has been met with among primitive peoples in every part of the world. The tracing of clan relationship through the mother is accompanied by the custom, so strange to us, of the mother’s brother exercising a paternal authority over his sister’s children. Thus, among the American aborigines, the uncle is practically at the head of his sister’s family, and he may often appropriate his nephews’ property, and even participate in the presents received on his niece’s marriage. The ideas on which this custom is based are prevalent also among the Kafirs, and Mr. Morgan supposes that it is nearly as ancient as human society. The authority of the uncle has, indeed, a stronger foundation than even actual blood relationship. This relationship is evidenced by the possession of a common family name, that of the clan of which the mother is a member. The remarkable influence of the superstition connected with proper names is well known. It seems to depend on the idea that the name, in some mysterious manner, becomes so identified with the person who bears it as to form part of himself; the knowledge of a proper name, like the possession of a lock of hair, giving, in the estimation of some peoples, an occult power over the person to whom it belongs.

Although we shall find in what has just been stated as to the obligations of clanship the key to the classificatory system of relationships, yet it is not improbable that some other custom, although not communal marriage, may be required to enable a perfect explanation of its origin to be given. According to the Ganowanian system of consanguinity, although the children of brothers are brothers and sisters to each other, and the children of sisters are brothers and sisters to each other, yet the children of a

brother and of a sister stand to one another in a different relation. This is the same throughout all the forms of the classificatory system except those in use in Hawaii and the Kingsmill Islands. The existence of such a rule is positive proof that relationship is affected by clanship; since, as children take the name of their mother, and a man must marry a woman of a different clan from that of his sister, their children must belong to different clans. According to the same rule the children of two sisters must bear the same clan name, and hence they will be more nearly related than the children of a brother and of a sister. The nearness of relation between the children of two brothers cannot, however, be thus explained. As Mr. Morgan says, since the brothers "must marry out of the tribe [*i.e.*, clan], and since descent is in the female line, their children are of a different tribe [clan] from themselves and seven chances out of eight of two different tribes [clans], each differing from their own, and yet their children, who are not tribal [clan] brothers and sisters, are such under the system." The difficulty cannot be got rid of by supposing that originally intermarriages were limited to two clans, since at the earliest period the children of a brother and of a sister stood in the same relation to each other as did the children of two brothers or of two sisters.

These facts evidently point to some custom, which gave to relationships the simplicity observable in the primitive phase of the classificatory system. Mr. Morgan supposes this, as we have seen, to have resulted from the practice of brothers and sisters intermarrying; but it appears to me that a totally different explanation must be sought. Instead of being caused by the absence of restrictions on marriage, the phenomena under consideration are due to the operation of marriage regulations, which were probably coeval with the rules of descent founded on the blood relationship between mother and child. It is evident that, if the only sign of kinship were the bearing of a common clan name, a man might marry his aunt or his niece on the female side, since neither of these bear the same name as himself. The same would be true as to a man's half-sister, if his father took wives from two clans instead of from one only; and if *ego* were a female she might not only marry her half-brother, but even her own father, on the assumption that sameness of family name was the only bar to marriage. This case has, however, been provided for by various peoples, as we see by the marriage regulations which have recently been described as operating among the aborigines of Australia. Throughout the greater part of the Australian continent the natives are divided into four great classes, which embrace six or more clans, each of the former containing at least two of the latter. The members of a particular class are not prohibited from intermarrying so long as they do not belong to the same clan, but the children of the marriage belong to a different class from that of either of their parents. The operation of these rules is seen from the following tabular statement prepared from Mr. Ridley's account of the customs of the natives of East Australia.

Ego.	Children.	Nephew & Niece	Brother & Sister.	Cousin.
Murri	Ippai & Ippatha	Kubbi&Kubbotha	Murri & Matha	Kumbo & Butha
Kumbo	Kubbi&Kulbotha	Ippai & Ippatha	Kumbo & Butha	Murri & Matha
Ippai	Murri & Matha	Kumbo & Butha	Ippai & Ippatha	Kubbi&Kubbotha
Kubbi	Kumbo & Butha	Murri & Matha	Kubbi&Kubbotha	Ippai & Ippatha

Now, as a *Murri* can usually only marry *Butha*, it is clear that he cannot marry his daughter, sister, niece, or cousin (with one exception), all of whom belong to forbidden classes; and the same consequences attend the marriage of a *Kumbo*, an *Ippai*, or a *Kubbi*. A half-sister and an aunt are equally within the prohibited degrees, as they also belong to the same class and clan as *ego* himself, or as his children. The only exception to the prohibition of marriages between near relatives is in the case of cousins, where these are the children of a brother and of a sister, the exception being due to the fact that by the operation of the rules of descent these cousins fall into the classes between which marriages are allowable. The regulations in force among the Australian aborigines operate so perfectly to prevent the union of blood relations that they were doubtless framed for the express purpose of attaining such a result.

It might be thought that the more simple Hawaiian system of relationships is inconsistent with the existence of such stringent marriage regulations as those just described, but the reverse is the case. We have already seen that the earliest nomenclature divides all kinsmen into what the Chinese term *Grades of Relatives*, every member of each grade bearing exactly the same relationship to *ego* as his fellows. How the reference to a common ancestor, on which the division into grades evidently depends, originated is uncertain. Mr. Morgan, in accordance with his special views, accounts for it on the assumption of a former condition of promiscuity, with cohabitation between brothers and sisters, and perhaps between parent and child. To my mind, however, the extreme distaste which savages have for blood alliances, renders it highly probable that the reference to a common ancestor and the division into grades of relatives which flows from it were originated, like the marriage regulations of the Australian aborigines, for the express purpose of preventing them. The recognition of the community of blood by descent from the common ancestor would require also the equal relationship to him of all the members of a particular grade, and it would be inferred that, if it is wrong for a man to marry his child, his sister, or his mother, it must be equally so for him to marry any of his kinsmen in the grades to which those relatives belong. The classificatory system would, according to this view, have for its object, not so much the definition of relation-

ships, as the ascertainment of the persons who were within the forbidden degrees of consanguinity. Kinship, however, was not forgotten; but, although governed by blood, its claims in the early stages of society would be recognised in relation to property descent rather than to social or family duties. As the ties of blood came to be distinctly regarded the classificatory system would undergo modification, until finally the ideas which governed the rules as to marriage and kinship coalesced in the recognition of the father as the person through whom descent is to be traced for both purposes. Primitively, as we have seen, *descent* was traced through the mother, and it is hardly less certain that the regulations as to *marriage* were based on the relationship of a father to his child. In no other way can we explain the fact that in the primitive system of the Kingsmill Islands the word *Tibū*, which is applied to a grandfather and to all the males of the superior grades, means "ancestor." So, also, in the Hawaiian system the word used to denote grandparent, *kūpūna*, signifies an "ancestor," and appears, like the phrase *noqu vu* (the title given by the Fijians to all ancestors beyond grandfathers) to imply the idea of a "source" or "spring." Moreover, only on the supposition that the relationship of a child to its father was thus recognised can we satisfactorily account for the fact that among many primitive peoples, as with the Fijians themselves, descent has come to be traced through the father instead of through the mother.

We are thus brought to the conclusion that the indirect evidence of the former general existence of communal marriage or promiscuous intercourse between the sexes is not sustainable. And, further, as both the primitive custom of clanship and the classificatory system are based on blood kinship, the relationship of the child not only to its mother, but also to its father, and therefore the marriage connection on which such relationship depends, must have been recognised from the very first formation of that system. Whether there ever was a time when marriage was unknown, or whether the restrictions created by blood relationship were ever unrecognised—at least after the first family of primeval man had become sufficiently numerous to render the marriage of near relations unnecessary—is extremely questionable. The evidence thought by some writers to exist to the contrary is, as we have seen, of a very unsatisfactory character. It is even mere conjecture, whether or not, as Mr. Darwin appears to think, men and women formerly entered into temporary, though strict, unions for each birth. This may have taken place, but, as the same illustrious thinker finally writes, "If we look far enough back in the stream of time, it is extremely improbable that primeval men and women lived promiscuously together. Judging from the social habits of man as he now exists, and from most savages being polygamists, the most probable view is that primeval man aboriginally lived in small communities, each with as many wives as he could support and obtain, whom he would have jealously guarded against all other men. Or he may have lived with several

wives by himself, like the gorilla; for all the natives 'agree that but one adult male is seen in a band; when the young male grows up, a contest takes place for mastery, and the strongest, by killing and driving out the others, establishes himself as the head of the community.' " It by no means follows, however, that primeval man acted like the gorilla in the choice of his wives, and there is no reason why he should not from the very earliest epoch have had that antipathy to alliance between blood relatives which has given rise to the marriage regulations of the savages of the present era, and which appears to be completely engrained into the minds of the most uncultured peoples.

The thanks of the Meeting having been voted to the author, the Meeting was adjourned.

ORDINARY MEETING,

*Held at 37, Arundel Street, Strand, London, W.C., on Tuesday,
18th November, 1873.*

Dr. R. T. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.
Elections announced:—

Fellows: A. D. THOMSON, Esq., M.A.; WEBSTER GLYNES, Esq.,
M. Phil. Society.

The President stated that he had received a letter from Captain Burton, mentioning the discovery by him of some Scandinavian inscriptions, in Arabic characters, at Maeshowe, in Orkney.

The Honorary Secretary read the following extract from a letter from Mr. A. F. Jones, F.L.A.S., of Rio de Janeiro, dated 20th June, 1873:—

"I am afraid that I have learned nothing new here which throws any light upon your favourite science. To study the indigenous races in this city is as impossible as studying the red tribes of North America in New York; and the slave trade has been prohibited so long that almost all the blacks are of mixed race, so that it is impossible to tell to what African nations their parents belonged. One thing, however, has struck me, and, as I do not remember having heard or read of it, I will here mention it. In speaking Portuguese, the negroes and mulattoes leave out exactly the same consonants

that a Frenchman would if reading that language according to his own rules of pronunciation. A few examples will suffice :—

<i>Portuguese.</i>	<i>Negro Pron.</i>	<i>French.</i>	<i>English.</i>
o mesmo	o mêmô	le même	the same
descarregar	decarregar	décharger	to discharge
brilhar	briyar	briller	to shine

(Pronounced brilyar).

As, moreover, they leave out the final consonants of all words not followed by others beginning with a vowel, the similarity is increased. This is something more than a coincidence, it shows that two races, so different from each other as the Gaul and the African, find the same difficulty in pronouncing certain combinations of sounds; or perhaps the musical ear of both is offended by some unpleasant harshness in them.

A stone has lately been found near the Rio Parahyba del Norte inscribed with Phenician characters. These have been deciphered by Señor Lopez Netto, the principal curator of the museum here, as recording the landing of a Phenician crew near the spot where the stone was found, some three or four centuries B.C. They sailed down the eastern coast of Africa and doubled the Cape of Good Hope, after which they were driven by the winds and currents to the same part of the coast of Brazil that Cabral was, eighteen centuries later. The published accounts of this find are so vague and unscientific that I can form no opinion of my own about it, but I shall try to make the acquaintance of Señor Lopez Netto, and question him, and, if possible, get a rubbing of the inscription and examine what kind of stone it is.”*

The Honorary Secretary also read the following extract from a letter from Mr. G. E. Lewis, Local Secretary for South Australia, dated 4th September, 1873 :—

“As to the measurement of natives, they are all away on hunting expeditions in the scrub, their usual habit in the winter, when there is water to be obtained on the surface after rains; during the summer months, when the surface water dries up, they return to the coast and subsist on fish, &c. Last summer, too, was an unusually sickly one with the darkies, and many died. I do not suppose there are more than fifty on the whole of Yorke’s Peninsula; so that getting the descriptions you require will be a work of time. I will try and get some specimens of hair; but they are very superstitious about their hair, and those who do use a comb are careful to preserve any loose hair they may comb out, for fear it might fall into the hands of any strange blacks, in which case they think their own death would assuredly follow in a short time.”

* Further information on this subject has since been received from Mr. Jones, which will appear in the next number.

An Address (of which the following is a condensed report) was delivered on

THE RED MEN OF NORTH AMERICA.

By J. SIMMS, M.D., OF NEW YORK.

THE Flathead Indians are divided into a number of small bands, having different names, and inhabiting the neighbourhood of the Columbia River, Western Oregon, and British Columbia. Some of them are found near the mouth of the Columbia River, under the name of Chinooks, others are called Sac-leis, and further back different names are found. They are not governed by one general chief, but each band has its own chief and its own peculiar ideas and views. They have the belief that their remote ancestors flattened their heads; and, consequently, they all do the same. When a child is born, its head is put under pressure from the front, by a board or piece of stone, coming down to the upper portion of the orbit of the eye, pressing the frontal bone back till it becomes perfectly plain up to the sagittal suture, and pressing it towards the occipital bone until the skull forms somewhat of a cone towards the parietal bones. This pressure is continued for three, six, or sometimes nine months, and when it is removed the skull retains its artificial shape. The head being pressed at once, and the bones not being ossified, the sutures are never closed. The young children present the most horrid sight I ever saw; their heads are charged with blood in every part, and look very hot and feverish, but they very rarely cry. The pressure put upon their heads compresses the nerves, which affects the scalp so that they can hardly move the scalp at all. The Flatheads take the salmon and otter, and eat them as their usual food with bitter corns, and their teeth become very hard. I never saw but one defective tooth among them. There are many half-breeds who do not press their heads, and some of whom have light blue eyes, and hair a little inclined to be curly, which is not usual with any full-blooded Indians. These look upon it as a disgrace to have a half-breed born among them, and consider the white race inferior to themselves in all respects. They have a prejudice against the Americans because they have deceived and cheated them so much; but respect the English and call them honest men.

The Indians are very superstitious, and worship little wooden images, which they call gods, and pray to and talk of as superior beings. They dispose of their dead in this manner: they do not bury them, but make a pen, about six feet high and eight square, of boards riven with stone axes out of the red or American cedar, and they do this almost as evenly as we can saw a board. These boards are set up on end, forming the walls of the pen, and they put poles and bark and boards on the top. The dead body is then rolled up and put on the earth inside the pen. The Flatheads embalm the dead, placing berries in their eyes and mouth, and put skin over the head, which they say keeps the worms, &c., away. The climate

being dry, and the berries preserving it, the skin remains until it drops off. In British Columbia it is an offence punishable with imprisonment, or a penalty of £500, to disturb the grave of an Indian; which is a very good law, as much trouble and disturbance has been caused between the Indians and whites through violation of the native graves for the sake of the articles buried in them. Every article that the deceased valued—trinkets, dollars, hatchets, blankets, gun, &c., is buried with them—even a dog, rabbit, or other pet is killed, embalmed, and buried. There is no law of this kind in the United States or their territories; so I was enabled to obtain skulls from Mamlook Island, in the Columbian River, two hundred miles from its mouth, where thousands upon thousands of Indians are buried, and where they continue to bury still. "Mamlook" means "island of the dead." This island contains perhaps from four to six acres, and is rocky, with a few trees. On opening the tombs there, bodies are found sewn up in buckskin. In former times, when a man died before his wife, she was sewn up with him while she was alive. When any of them die, it is customary for their friends to howl all night, for three or four nights, in their wigwams. The Flatheads were formerly cannibals, and ate those whom they killed in combat. They never wash their hands or faces, and they lie more naturally than any race in the world. They are very superstitious, and, if they remove one of their dead, make a solemn prayer. I have seen them in the woods, when they thought they were not observed, praying as fervently as possible. They sculpture out of stone some very curious works—hatchets, human heads, representations of deer—some of which are very beautiful and sell upon the coast at rather high prices.

The wigwams of the Flatheads are peculiar. These Indians put down poles from six to ten feet high, and throw over them a blanket or wampum, leaving a little hole in the top for the smoke to escape from. They make a fire in the centre, and lie down with their feet towards it. They are very talkative, especially the squaws, and very intelligent—perhaps on that account. They eat almost anything—worms, and a particular kind of chrysalis; they call them pleasant, and talk about them as the sweetest things they can get; they also swallow, with all the relish imaginable, corn so bitter that I could not eat it.

Another Indian tribe, in the north-western part of Vancouver's Island, the QUATSINO, have this peculiarity, that, instead of flattening their heads, they wind them round with bark at their birth till they run up like a sugar-loaf, generally from twelve to fifteen or sometimes eighteen inches from the eyebrows to the top of the skull. The skull becomes very narrow, and they think the taller and narrower they can make it the more honourable they are and the more they resemble their ancestors. This race of Indians is friendly and quiet if not disturbed by the whites; if treated well, they are generally very mild, but they are revengeful when badly treated (as they have sometimes been); and, if they receive an injury, they will remember it for twenty years after and never fail to be revenged if

an opportunity is presented. They are fond of the heads of dogs, horses and cattle, and of the hoofs of the latter. I have been in their wigwams when they have been boiling the hoofs and head of a horse in one pot and making soup of them. They have soup dishes, like the one exhibited to-night; which I think is made of horn; and they have spoons of the same material, which will hold more than a common dessert spoon. They gather round the dish of soup when it is quite warm and take the liquid out with a smaller dish, from which they all eat, each using his own spoon.

The Indians are not in the least squeamish about any matters of dress or taste. They lie down male and female together in the wigwams and sleep perhaps as virtuously as many who are more particular; in fact, they are known to be, as a rule, very virtuous. The Chinooks and Quatsino look down upon the squaw who has done anything improper, and will take her out and kill her, especially after cohabiting with a white man.

The Quatsino are very numerous—certainly several hundreds, perhaps thousands—but their number is hard to estimate, as they are cut up into little bands. The country they inhabit is two or three hundred miles long by about fifty broad. The Chinooks extend over several hundred square miles and number at least several hundreds.

It has been stated by Catlin that only part of the Chinook tribes flatten their heads. This is erroneous, as all do so but the half-bloods. I have seen many whose hair was so light that I knew they must have been somewhat mixed with white blood; some even on the flattened skulls looked quite sandy, so that I concluded they occasionally flattened a half-breed's head through ignorance of the child having a mixture of blood. The eyes of the full-blooded Indians are always bright; those of the half-breeds are less so.

There are 150 different tribes of Indians living in North America, but the Chinooks and Quatsino are the most interesting of all. They are friendly unless they are molested; but, if their dead, or their children, or squaws, are interfered with, they will follow the intruder for hundreds of miles to be revenged. If even a rumour is set on foot that their dead are being disturbed, or that people are stealing their horses or cattle, an Indian will get on his horse and ride for miles and miles through the country to verify the fact, and the bands will gather together and kill the whites and steal their cattle. They are very destructive when once enraged.

I have here pictures of representatives of some of the other tribes. The head chief of the Fox Indians was Blackhawk, whose portrait is exhibited; he was the most bloodthirsty chief who ever ruled, and was not liked even by his own people. He was one of the most tough and hardy men who ever lived. General Jackson fought against him at an early period of his career. Nearly all the Indians are named from some personal peculiarity. Thus Cutnose, whose portrait is exhibited, had a deep slit or cut on his nose; he murdered eighteen people in Minnesota in 1862, and was hung for these murders. The Indians know to what tribe an Indian belongs from the manner in which he performs the operation of scalping.

Some take a little strip, others the skin from a small spot as large as a dollar, others a piece from one side, so that the same man may be scalped two or three times. When an Indian saw Judge ———, who had been scalped, he said "Sioux"; he knew this by the shape of the piece they had removed. They take a knife with an edge on both sides, strike it into the skull, turn it in a circle, and then seize the piece cut round with their teeth and tear it off. It is a very difficult matter to do this quickly. They leave the man, whether dead or alive; and, if not dead, he may recover. The Indians hunt and shoot beautifully. I have seen them shoot at a strip of paper, two fingers wide, at ten rods distance, and hit it four or five times with the bow; they draw the bow from the breast and look at the mark, and the arrow flies like a bolt. They shoot more accurately than the whites with rifles, but would rather have a bow and arrow. They draw a bow to the full length of the arm that I could hardly bend to a foot and a half; the muscular exertion thus required is the reason why they have such large breasts (as in Hoo Wan Ne Ker, the Winnebago chief whose portrait is exhibited). The Sioux (who live now in Western Minnesota) whom I knew hunted with a long bow, having two notches on one side, but the Fox Indians use a short bow.

The Indians endure more fatigue, and go without eating for a longer period, than a white man can do, and are more muscular in the lower part of the body. They have their good as well as their bad qualities. I have seen Indians sitting without a fire, or with the fire only smouldering, in the coldest weather without suffering. I never heard an Indian—not even a child—utter a complaint about anything or anybody. Among the CHEROKEES, Se Quo Yah has invented an alphabet and a language, and they print a paper which can be read by none but themselves and those who have learnt their language. Se Quo Yah received many medals (from foreign countries especially) for introducing his alphabet and thus advancing civilization among the Cherokees. They live in the Indian territory in the south-west of Kansas, and have intermarried much with the French. They are wealthy, and buy and sell in gold and silver, but will have nothing to do with greenbacks. They number several thousands, and are very industrious and intelligent. Many of them have manufactories and schools.

I once visited an Indian camp half way up a mountain, a position to which they always ascend when able, so as to avoid the cold of the valleys and to be protected from the winds by the mountain. With a fire in the centre of their huts, and sleeping with an old blanket rolled round them, they never freeze; as, so long as they live out in the open air and have their natural food, and are not trained and disciplined in schools, they have a freer circulation and more vigorous heart than the whites. So soon, however, as they begin to intermarry with white people and to be educated, they lose their robust constitution. Thousands of intermarriages have taken place between them and the whites, and, as a result, the Americans are looking more and more like Indians each year. Their hair gets

straighter, their appearance more gaunt, and their cheek bones higher; and, perhaps, they have more endurance than most whites. J. Randolph boasted that the blood of Pocahontas ran in his veins, and he was one of the most talented men that ever lived in the United States. I knew a quarter-blood Indian who was six feet eight inches high, with black hair and eyes, and he had great powers of endurance.

The Fox brave, whose portrait I have here, has ornaments of buffaloes' horns to represent him as very brave and as courageous as a buffalo. Some of the Indians wear bears' paws as long as a finger, cut from the animals they have killed, strung on a cord. They often wear white men's scalps, and bones, and teeth, to show their courage and bravery.

I have a representative portrait of a SAUKIE chief, whose tribe is nearly extinct, as are the Winnebagoes and Seminoles. The most numerous tribe of any is that of the Cherokees, nearly all of whom wear a ring in their ears and bands of silver, gold, brass, or copper round their waists. They are very fond of trinkets. The MUSQUAHEE is perhaps the bravest tribe of all, except the COMANCHES, who are, however, so treacherous that they can hardly be called brave. The DIGGER Indians of California are the dirtiest, blackest, and shortest of all the natives, some being little over five feet high. They eat a kind of black cricket, an inch and a-half long, which becomes very fat in the fall of the year. This they pound into a mash with bitter corn and dry it in the sand. When one of them dies the relations of the deceased cover their hands and faces with a mixture of tar and the ashes of the deceased, which makes them look very frightful, and perhaps keeps the young Indians from courting the widow till a proper time has elapsed after the death. The Diggers have excellent teeth and are fine hunters. I have seen one of them shoot an arrow fifty feet over the highest pine-trees, which are there 200 feet high. Each of them has two or three dogs to raise quails and partridges. They are not particular about having their food cooked. I have seen them eat a salmon while it was wriggling to get away from them. When hungry they will eat anything they can get, perfectly raw. It is noteworthy that the Diggers, who are the darkest of all the tribes, live in a valley, and that, as a rule, the lightest Indians live the farthest north or in the most elevated regions, the darkest tribes, as a rule, living the farthest south. Some of the Indians have almost European faces (this Cherokee chief, for instance, whose portrait is exhibited). The Cherokees have, however, intermarried much with the whites, and are very intelligent. They do not eat meat raw, and have habits more or less like those of the Europeans. They are very fond of jewellery and of gold and silver coins, which they value according to their size; so that you cannot buy as much for a sovereign among them as for a two shilling piece.

The Indian girls are sometimes very pretty. Their features are not flat. The Indian nose is not flattened, like the negro's, but is well raised, although it slopes a little and is thick. Their eyes are full

and very black and shining. They braid their hair a little, but do not comb it, except by passing their fingers through it. They are very good-natured, and are very fond of trinkets and red ribbon and of red colour generally. The Indians paint their faces for the war dance every year with spots of red, white, black, and other colours; one spot on the cheek red, another green, and another blue, with white stripes at the eyes and sometimes round the mouth, or stripes of white and black right across the face. They strip themselves almost naked and paint their bodies, as well as their faces, for the war dance. The effect is very peculiar and striking when they whoop and halloo and dance round the circle. The dance is not much, and the sounds are not very musical to a European ear. I once asked a Chinaman whether he liked the music, and he said, "Yes, Chinese music good to Chinese, English music good to English." The manner in which the Indians brandish their knives is frightful, and as they get money and whiskey from the whites they become very intoxicated, and sometimes two or three of them are killed at their yearly dances. One of the portraits exhibited is that of a SHAWNEE chief, who has a heavy silver ring in his nose. I have seen them with a piece of the scalp raised and a ring put through it. They always wear a ring in their ears, and sometimes put a stick through the septum of the nose when they cannot get a ring for the purpose. Washington gave Red Jacket a silver medal, and he wore it as long as he lived, except one night when he got drunk and traded it for whiskey in Buffalo. The next morning, however, he told the man that, if he did not give up the medal, he would kill him; and the threat had the desired result. All Indians read character well; and if a dishonest man goes among them they generally see through him. If a man talks rapidly, they say he lies much, if slowly, they think he is honest. They judge much by first impressions. They like to shake hands, and do it naturally, but will sometimes shake hands with an individual one minute and kill him the next.

DISCUSSION.

The thanks of the Meeting having been voted to Dr. Simms for his address and for the exhibition of a number of well-executed, half-length, full-size oil portraits of Indians of different tribes, and other objects by which it was illustrated,

Mr. LEWIS said he was surprised to hear the extent to which (according to Dr. Simms) intermarriages had taken place between the Indians and the whites, and he wished to know whether, bearing Knox's theories in mind, those intermarriages had had any influence on the alleged decrease of the descendants of the earlier settlers in the United States. He thought the old Highlanders had exhibited as much, or more, hardness than even the Indians, and doubted whether it was altogether a racial characteristic. He drew attention to the fact that the dish exhibited was so orna-

mented as to depict a human head, confirming Mr. Tylor's view that the human head and face were likely to be copied for ornamentation anywhere by any race, and that therefore the theory recently propounded, that the use of some such ornaments on the paddles of different races was a proof of connection between those races, was ill-founded. In conclusion, Mr. Lewis adverted to the theory of Professor Gennarelli, introduced to the British Association by Mr. Carmichael, as to the former existence of a race of red men on the shores of the Mediterranean, and expressed a hope that Dr. Simms, who was proceeding to those countries, would investigate that theory.

MR. OLIVER suggested that the dish exhibited might be made from the scales of the shell of the hawks-bill turtle.

DR. KAINES complimented Dr. Simms on his admirable exposition of the manners, customs, and habits of the Indians of Vancouver's Island, and asked for more information as to their religious belief, particularly as to the belief in a future state, and in a god, or great spirit. Dr. Kaines asked whether the Indians had household gods similar to the Lares and Penates of Rome? And whether, if they had not, they worshipped animate or inanimate objects as fetishes? He also asked Dr. Simms for information as to whether the Indians were polygamous or monogamous. Referring to the current superstition amongst the Indians, that at an eclipse a large fish swallows the moon, Dr. Kaines drew attention to a similar notion amongst the Chinese, who substituted a dragon for a fish.

DR. CARTER BLAKE said that the whole subject of cranial deformations had been so thoroughly worked out by Gosse, Von Baer, Broca, &c.; the habits of the particular tribes of Indians so exhaustively treated by Scouler and Bell; and the languages by Gibbs and others, that there was not much new to say on the topic. He asked what reason Dr. Simms gave for the large proportion of French and Spanish words observable in the Chinook jargon?

THE PRESIDENT said the practice of compressing or altering the form of the skull immediately after birth is reported of many peoples. The Turkish midwives, at the solicitations of the mothers, are said to mould the head into a globular form to accommodate the turban; but there is no real evidence of such a practice among the Turks, and there is no necessity for it, seeing that the Turkish skull is of a globular form without it.

DR. SIMMS, in reply, thought he had understated rather than overstated the amount and effect of intermarriages. He himself was, according to family tradition, one thirty-second part Indian. In the outlying settlements, intermarriages were very common. General Grant, when on the Californian coast as captain or lieutenant in the United States army, lived with an Indian woman; and this sort of thing has gone on where one would hardly think it possible for the last 200 years. The quarter-Indian girls are very beautiful and often well educated. He had seen a young lady in London, in whom he had detected Indian blood, and whose grandfather on enquiry he found to have been a full-blooded Indian.

Since Webster died it has been asserted that he was partly of negro blood, and his large black eyes, thick lips, and eloquence were attributed to that intermixture. He thought the intermixture might have an injurious effect at the beginning, but the next generations combined the intellect of the whites with the constitution of the Indians. The Spaniards were among the first settlers in California, and on almost the whole of the western coast Spaniards still own large tracts of land. At an early period of the colonies many of the Indians who inhabited the Western States and the Rocky Mountains lived among the French in the neighbourhood of St. Louis and New Orleans, and had since been moved to reservations further west. These circumstances account for the mixture of Spanish and French in some of the dialects. There were many French also in Canada, in the eastern part of which that language was still spoken, and Indians who formerly lived there had moved further west and carried some of the words with them.

The Indians believed in a hereafter, that heaven was a vast hunting ground, where they would have all the game they could desire, and that their chief will be a great spirit and will command them in the next world. They believe, moreover, in another great spirit that they have never seen, but hope to see after death. They worshipped those little idols of wood twelve or fourteen inches long of which he had spoken, knelt down before them, and had them buried in their blankets with them tied up with great care like a dead child. He had several in his possession very nicely carved. They believed God had power to make a long cod-fish swallow the moon; and when they see an eclipse they think the fish has got hold of it, and a great *pow-wow* is got up to drive it away.

He thought the dish exhibited was made of horn. He had a pair of horns that weighed eighteen pounds and were several inches round. The Indians cut them open and spread them out, and he had seen them making side-dishes of that material. In conclusion, Dr. Simms said that there was a similarity between the American tribes and the peoples who inhabited the shores of the Mediterranean in flattening the head and in embalming the bodies of the dead, and burying implements with them, and he might have something more to say on that head at a future time.

The Meeting then adjourned.

ORDINARY MEETING.

Held at 37, Arundel Street, Strand, London, on Tuesday, 2nd December, 1873.

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

Presents announced:—For the Museum, 12 spears, 11 other objects, 2 skulls, and 26 photographs from the West Coast of Africa, from DR. R. B. N. WALKER, F.R.G.S.; for the Library, several numbers of “*Materiaux pour l’Histoire Naturelle et Primitive de l’Homme*,” from M. E. CARTAILHAC; several numbers of the “*Revue Scientifique*,” from the Editor; one number of the “*Proceedings of the Society of Biblical Archæology*,” from the Society.

The thanks of the Society were voted to the donors.

The Honorary Secretary read the following paper:—

ON THE CAUSES WHICH DETERMINE THE RISE AND
FALL OF NATIONS.

By T. INMAN, M.D. (LOND.)

THE problem whether nations, like individuals, have a period of growth, maturity, and decay is an exceedingly interesting one for Anthropologists. The analogy between children and savages, men and the denizens of polite cities, has recently attracted much attention. It equally deserves attention to investigate whether great kingdoms must perish by inexorable law just as powerful chieftains do. Was it, we may ask, as certain that Greece should decay as that Alexander must die? History has told us of many mighty warriors and consummate statesmen, all of whom have perished; it has told us too of great empires that have wholly passed away. The pride of Babylon, of Assyria, of Media, of Persia, of Egypt, of Greece, of Tyre, of Carthage, and of Rome has all departed? Of their cities some are in ruins, or now wholly untraceable, and others have decayed. Since then Austria, Prussia, Russia, Spain, France, England, and the United States have risen, and some of these appear to have arrived at maturity; will they, however, by any inexorable law, follow in their course the nations that have already succumbed?

This problem has been often handled by statesmen and moralists yet very rarely from an anthropological point of view. Old habits of thought, and old assertions mistaken for truths, have generally neutralized the conclusion drawn. To avoid this shoal ourselves,

I will shun as far as possible every assumption that does not appear to be founded upon facts, and by definition point out what I mean by doubtful phrases.

In the first place, by the term "a great nation," I mean one which has attained—in one way or another—to a position when it is sufficiently powerful to command peace within its own borders; sufficiently well governed to have good laws, upright judges, patriotic statesmen, and efficient means for preventing or punishing social crime, *i.e.*, offences against the community as a body, or individuals as portions of a commonwealth. I do not mean simply a belligerent nation, as the French were under Napoleon, or the Turks were when they entered Europe. Such may be compared to strong and very pugnacious boys, who can bully their small schoolfellows, yet never arrive at a sensible manhood. Again, by "the advance of a nation," I mean the course upwards from a barbaric or semi-civilized state to one in which it would be difficult to find any attainable object which is not already obtained. By "the fall of a nation," I wish to indicate a condition in which a people cannot command peace abroad nor justice at home; when the rulers are despised by the neighbouring states, and the ruled are the objects of contempt or pity.

In seeking for the causes of the rise and fall of kingdoms, we must examine into the former first and inquire how any set of people has become a nation at all.

To understand this, I believe that it is the best plan to assume that every nation can be traced to a family, or to the junction of families. Leaving the vexed question on one side, whether all mankind come from a single pair, I will content myself with saying that my remarks will apply in either case. If we allow a single pair, all that is necessary to my argument is the assertion, that the sons of the parents differed aforetime just as sons do now; if, on the other hand, we adopt the most probable view, and believe that different sets of parents have existed in different countries, we assert that such sets of parents have probably differed from each other as much as the camel differs from the horse, the dog from the cat, the peccary from the pig, and the hare from the kangaroo, and we next enquire in what it is probable there would be resemblances, or wherein differences might be recognised.

There is strong reason for affirming that all would be similar in those conditions wherein man resembles brutes. All would be more or less animal, with propensities to fight, to feed, to procreate, and to sleep. There would be difference in certain outward forms, as there is in the elephants of India and Africa; in colour, as there is in the Arctic and English foxes; in hair, as there is in various breeds of sheep; and in personal strength, as there is between one bull and another; or between Patagonian men and the Esquimaux. In such resemblances and differences we can well believe. But, as animals differ amongst themselves in intellectual faculties, so we believe that different families of mankind have been endowed with capacities of different orders. For example, by common con-

sent we believe that the elephant has more mental power than the bull. We can steal the former from wild life amongst his companions and in a few weeks train him to the usages of civilization, whilst the bull will resist all our efforts. Just so a slave from Greece or Britain in the Roman household learned the arts of their conquerors sooner than the negro or the Libyan. Again, in some races of animals gregariousness is an instinct; in others—amongst wolves for instance, squirrels, rats, mice, &c.—there is in one of the flock a propensity to lead; amongst others, docility in being led. The artifices of the prairie wolves of America and the female-led wolf flocks of Russia and Poland are well-known to naturalists. We are not therefore violating probability when we assert that the primitive families of men have differed intellectually as well as physically. Moreover, in pursuing our analogies, we can readily understand that there might be between primitive human families as great an antipathy as there is between the Hanoverian and the British rat, and that the stronger would annihilate the weaker; or, on the other hand, there might be only a temporary hostility, such as horses and cows in a meadow show to all new comers, ending, nevertheless, in a close alliance, offensive and defensive.

There is, then, nothing outrageous in the assumption that there have been one or more human families who have intellectually surpassed their neighbours. To this conclusion many considerations point. There are, for example, nations like the Tartars, which, though in contact with civilization, have not become polished; others, like the Red Indians, which refuse to be seduced by the white man's arts—the Australians, who run back to the bush after having been taught the comforts of a fixed home, and the negroes, whose capacity for learning seems small. These again may be contrasted with the ancient Greeks, who jumped from barbarism to civilization at a bound; the Maories of New Zealand and the Otaheitans, who have taken kindly to polite life. On this supposition we can understand why it is that some peoples have never shown any evidence of rising in the scale of civilization until they have come into contact with a race of greater intellectual power and activity.

We next affirm, what history, we believe, fully supports us in, that there have been, from the earliest periods known, intellectual races as well as brutal ones. In very remote periods we find, for example, a nation with a written literature, and few can deny that the authors of the Vedas, and the inventors of the Sanskrit alphabet and grammar, have left their stamp upon the civilized world up to the present day. With these we may compare the inhabitants of ancient Babylon, who studied astronomy and had learned to build cities, cut stone, &c., at least six thousand years ago; the race from whom came Oannes, who taught the arts of civilization to the old Assyrians; the mysterious Phœnicians, who brought many arts and sciences and the idea of geography to Europe; and the still more mysterious Egyptians, who enforced an imperfect civilization along the banks of the Nile probably twenty thousand years ago. Of China we will not speak. The influence of these intellectual nations upon each

other, and upon those with whom they came into contact, and through them upon ourselves, can be ascertained in some degree from history.

The advantage of the intellectual over the animal propensities in determining the rise of nations has perhaps been better shown in the history of Russia than in any other modern empire. One of her rulers, Peter, came to study civilization where he thought it was to be found, and in his own person mingled most completely the savage and the sage. Nowhere in modern times can we see so thoroughly as in the generality of Russians the mixture of politeness and barbarism. Whilst a Russian emperor, prince, or other magnate speaks in French or German, he seems to be a civilized man, a polished gentleman; but when his feelings get the better, and he speaks in Russian, he is simply a brute, a talking beast. This, in a transition state, is both natural and pardonable; and there is ample reason to believe that, as time advances, the Tartar or boorish element will die away in all large towns of Russia.

Having thus rendered a certain homage to intellectuality, let us pursue it and see what becomes of it when it develops itself in the natural way. We do not think we are far wrong when we affirm that in some instances it seeks to unite itself with the animal element, whilst in others it determines to remain isolated. Those who unite the two are the seekers of power, and of personal enjoyment, whilst those who cultivate the intellect may be either visionary or practical.

If in any state already existing the rulers cultivate duly both the animal and the intellectual faculties of the citizens, we cannot imagine a more stable union; but if, on the contrary, either the one or the other is developed to its extremest point, the state will certainly suffer.

After these preliminaries, let us sketch the course of an intelligent family from its origin to its existence as a nation. The father, considering that his children must learn to be men and women, and to assist each other, endeavours to instruct them, whilst young, not only to do, but to think. Whilst they are ignorant they must obey, when intelligent they may advise—being united together, they seek to extend their influence by joining with another family, similar to their own, and the young people intermarry. Such unions go on. In each family there is a patriarch. At last the *terrain* occupied by the united tribe is too small, and then the whole must fight together so that the strongest alone may be left, or the heads of houses meet as a parliament, and, instead of eating each other up, determine to try and dispossess outsiders. In the latter event, an army is organized, and a stranger people conquered. The conquered may be made slaves, or may be simply turned out; in both of which cases they become enemies; or the survivors may be treated well, their daughters married, their sons adopted, and thus the whole be united as a happy people. For a time peaceful industry succeeds war; but again an extension is necessary—again is seen the necessity for civil war or foreign aggression, and again the latter is selected, and another

people or race is conquered. By this time the race once mainly intellectual has become diluted with others which have more of the animal than the thoughtful in their nature; and, for all to be comfortable, the worst must be coaxed upwards, or the best be drawn downwards. Presuming that the first are the most powerful, the ignorant are raised by education.

When amalgamation has thus gone on, it is possible, and it generally happens, that one intellect towers high above the rest, and is allowed to lead the united family: such an one exists in every society, club, assembly, coterie, or partnership.—So long as he is judicious, impartial, and his actions are such that all his thinking subjects approve of them, he remains a king, and so long as he can educate sons to take his place so long may his dynasty fill the throne. If he takes care to educate his people to think, and he takes equal care to do nothing but that which intelligent citizens must approve, all goes on smoothly—a policy of peace will give way to one of war only when the advisability or the necessity for the last is seen; whilst judgment will govern taxation and legislative enactments.

But no sooner has a state attained this position than it is threatened with danger. The danger springs from the animal propensities, existing alike in the intellectual and in the annexed families. To be a good sovereign requires great personal sacrifices, and to the many indolence is preferable to exertion. Hence, as the dynasty rolls on, there is an attempt to make conventionalism pass for thought, to discourage political study, and to foster the mere seeking of wealth and pleasure; ruling is reduced to routine, and the intellectual monarch becomes a bestial man. For a time this goes on; and, if the art of brutalizing is reduced to a system, the period may be indefinite; it may indeed continue until the family or the nation dies a natural death.

Yet it is difficult wholly to repress the uprisings of intellect wherever it is hereditary in a family; and it is equally difficult for the animal to bear unlimited punishment without repining. Consequently, at a time when monarchical government is bad, there is frequently a determination amongst an enlightened few either to resist the tyranny or to escape from it—to fight or to flee.

We have seen in modern times both alternatives adopted. In England and France kings have been deposed by revolution; and emigrants from these countries, escaping from bad government in the Old World, have formed a fresh dominion in the New. In all cases there was a necessity, as soon as the old rulers were deposed, to elect a new governor or government. But this task, which is easy in a small tribe, is very difficult in a large one, or in a nation; there is in an old state no machinery by which the best man shall come to the top. It may be that there are many who aspire to the headship and that each has a party. When this occurs the result is that war, civil and internal, or else wholly defensive or external, will decide who shall attain the top of the tree. Possibly the man who best knows how to sway the base affections of the human mind may carry the day over the most exalted philosopher. Whenever, by the

fortune of war, skill in directing the action of parties, or by the sheer power of bribery, a government is formed, it is liable to the same danger which besets royalty, viz., the tendency to allow the animal to triumph over the intellectual man. Hence one revolution is usually followed by another in old states; whilst in new dominions a pronged lease of power is rarely tolerated.

Whilst writing the above, I am conscious that I have omitted many subjects on which much stress may be laid; for example, I can easily imagine some one saying that coal and iron mines have done much to build up England's prosperity, and that, when these have been worked out, Britain must die a natural death as a nation. I grant the truth of the remark. But my essay was not made to fit England alone, nor indeed any other nation; and, should our people lose their mineral wealth, their sons will carry their energies to another clime, and, like those of Tyre, found some Carthage which shall perpetuate their memory. Again, it may be objected that I have left out the influence of religion in determining the rise and fall of nations. Nevertheless, I have done so advisedly; for in truth religion, ordinarily so called, has nothing to do either with the one or the other, except in so far as it is the means of spreading sound education and habits of thought. No careful reader of history can allege, for example, that the rise of the Romans and the fall of the Etruscans were due to the piety of the former and the wickedness of the latter. Rome indeed received its religious rites and belief from the Etruscans, and her best priests and augurs were educated in Tuscany. Again, no one can allege that the rise of the Grecian power was due to any form of religion whatever; for Alexander was a man who had no faith in priests, auguries, or current dogmas. Nor was the fall of Babylon and Assyria due to any want of deference to the gods, for both peoples were singularly pious. Still less can we trace the decadence of Rome to irreligion; for her power never tumbled down faster than when she had embraced Christianity, and, in the opinion of many persons, had become peculiarly holy. Neither has religion sufficed to shield modern Rome from repeated assaults and plunder.

In modern Austria, religion has, however, to a certain extent, been a cause of decadence. That empire once was powerful. By the astuteness of its rulers, province after province was added to its dominion, and it became a very important nation. But at the height of its apparent prosperity it sold itself to the see of Rome, and gave up to the Society of Jesus the power to educate its youth. From that time all active intelligence was repressed, and a policy which encouraged ignorance on the part of the people, crushed freedom of thought and action, and enforced a blind obedience was pursued.

Prussia, on the other hand, is pre-eminently a land of education and thought. Her subjects are not tied down to think only in a certain way; her literary men are permitted to read anything they please, to scrutinize what they read, and to announce publicly their conclusions. With them each unit—or nearly so—feels himself a certain power in the state—independent in one respect, and giving

an intelligent obedience to the law in another. Where all are striving to excel, those who make their way to the top must needs be moral giants. The rulers in Austria were tritons amongst minnows; those in Prussia are colossi amongst giants. Consequently, when the two people met each other in the shock of war, and active intelligence fought against routine, the former gained an easy victory.

Need I do more than point to the United States to show that national greatness depends upon a just commingling of the animal and the intellectual qualities of man? The Union owes nothing to any particular ruler, conqueror, or tyrant; her laws, her constitution, and the like, were made by men each one of whom had learnt to think vigorously and act promptly. The individual energy of her citizens is impelling her upwards and onwards; and with that religion has nothing to do. But the same people enable us to see a danger which threatens them. The worship of wealth, and the eager toiling of adventurers to attain to it, prevent the best man coming to the top. There is a constant scramble for places and for pelf, senators are venal, justice cannot be depended upon, and individual gratification is more thought of than the common good. Nevertheless, so long as the United States is the home of the adventurous, and so long as each citizen can act both as an unit and an integral part of the State, its power and prosperity are assured.

We have already arrived at the conclusion that certain terrestrial families are from their animal nature incapable of being absorbed amongst the intellectual races or of being taught fully by them; and it is therefore clear that the former must be gradually destroyed by the latter as soon as their exigencies demand expansion. It would seem to be as much a natural law that the earth shall ultimately be possessed by the most intellectual races as that man should replace wild vegetation by cultivation.

When it became a question whether the white man should settle in America, there was, and since that time there has been, a great deal of mawkish sentimentality talked; but the matter was practically set at rest thus: The white man went, impelled by his necessities; he met the red man, and they fought. Human intelligence overcame human brutality, dense forests gradually became replaced by cities, and where men, savage, cruel, and ruthless as the bears they fought with, once tortured, killed, and sometimes ate each other, others live in peace, comparative harmony, and in mutual love. Had the red man been capable of learning, he would have retreated before his conquerors until he had been able to study their arts and to beat their armies, as our Alfred acted when the Danes invaded Britain. Unable to learn, his instinct taught him to fight; he did so, and was conquered. Contrast the Indian with the New Zealander, and we see at once a vast difference in the teachableness of different races of mankind.

To observations such as the preceding the routinist opposes a few conventionalisms and washy platitudes drawn from some code of laws to which he has given his adhesion. He tells us that God is opposed to wrong and robbery, and that it is a crime to take away

from them the soil occupied by others. A minute's real thought, however, suffices to show that man cannot divine the intentions of his Maker; nor can he accuse the Almighty of injustice when in His providence war must precede peace. Everywhere on earth we find that war is the normal condition of young male chickens, lambs, goats, cubs, whelps; indeed, the young of all animals fight before they arrive at full maturity. By this means the best specimens of a family are preserved. And, when experience shows that this is a universal law, shall a man, however intelligent he may imagine himself to be, assert that the law-maker is wicked? If there is any one set of men who more surely than another would cause the decadence of a nation of whom they are integers, it is those who assume to dictate to the Creator of the universe, and to contravene His laws, that they may indulge their own fancies. From such let all Anthropologists separate themselves.

Since writing the above, I have met with the following passages in the "Cornhill Magazine," which so completely tally with the views expressed in my paper that I quote them with satisfaction. They occur at the end of an article entitled, "The Defenders of our North-West Indian Frontier," which describes the influence of British officers upon troops composed of those comparatively wild races, the Afghans, Sikhs, Rajpoots, and Punjabees.

"There is," it says, "apparently much the same kind of charm as in driving a team of wild horses or fiery mules in the command of such an army; and, as the Englishman looks round on his dusky followers, the *prestige* by which that solitary white man is enabled to rule by right of the strongest in character and will, in mind, and even in body, makes him, if he does his duty, an unconscious civilizer to an extent almost incalculable. There is no place perhaps where the personal character of each representative of the ruling race is so important, where he can do so much good and so much harm * * *

"The extraordinary influence of one high-minded European over whole masses of men has been shown again and again in India. For instance, Colonel Nicholson acquired such a name among his soldiers that to his horror a sect arose called the Nicholonees; and he is said once to have flogged a man who prostrated himself before him and was proceeding to do him divine honours."

We need not extend the quotation. We can see in a man like Colonel Nicholson the Manco Capac—or the original Inca—the child of the sun of the Peruvians; and in many a British officer in North India we may in fancy see the Roman captains who brought civilization to Gaul and Britain. We have recently seen the seamen of one Japanese gunboat, trained by an Englishman, beat off, with honour to themselves, a number of men-of-war more than ten times her power, and how Chinamen, drilled by Europeans, have showed themselves superior to all their countrymen in war. Equally certain is it that those Chinamen and Japanese who are learning the arts of peace from the Western nations are far more likely to grow in power, prosperity and influence than if with barbaric brutality they hug their ignorance and refuse to mend their ways.

The Treasurer then read the following paper:—

WESTERN ANTHROPOLOGISTS AND EXTRA WESTERN COMMUNITIES.*

BY J. KAINES, DOCT. SCI., M.A.

"The strong should protect the weak."—AUGUSTE COMTE.

* * * * *

"Do thy duty come what may."—*Old Knightly motto.*

WHAT are the duties of western Anthropologists to the less civilized communities of mankind? This I take to be a very important question. It behoves Anthropologists to answer it not only for their own sakes, but for that of their science, for upon a proper answer may depend its continued existence.

In endeavouring to answer the question, I shall put out of sight, as unworthy of consideration, all merely material considerations whatever, and consider the subject from the purely social and moral point of view. Deeply imbued, as I hope I am, with the teachings of the greatest thinker and religionist of our times, I shall regard this subject as an Anthropologist and a Positivist. I believe Auguste Comte to be the profoundest and wisest of modern Anthropologists, and that an earnest study of his writings will do more towards advancing Anthropological science than those of any (I had almost said all) other thinkers.

It was an axiom of Comte's, that politics should be subordinated to morals; so should science in general. Science, whether political or social, needs humanizing, and in fact will be worth little till it is humanized. When that is realized, we shall see what we do not see now, complete men in a complete society—each unit working harmoniously with the whole, the whole working harmoniously with and for each unit.

I may, for aught I know, express in this paper the views of Anthropologists generally—and I may not. Whether my views are sound or unsound, I alone am responsible for them. I shall, as far as possible, limit the area of discussion so as to exclude minor issues. My purpose is to provoke serious attention to a class of obvious, but, as I think, neglected truths. My object is not so much original research, as to stimulate the consciences of men to duties ignored or overlooked.

When speaking of western civilization, I mean not merely that of England, but that of France, Spain, Portugal, Holland, America; aye, even that of the semi-western power Russia. Some Anthropologists are awakening to the crimes and blunders all these powers have been guilty of towards the backward peoples of India, Cochin-China, China, Jamaica, Japan, and many other countries. Perhaps, when the moral atmosphere and education are different to what they are now, these pretended civilizers may see that a large restitution

* Read before the Anthropological Department of Section D, Biology, at the British Association, held at Brighton, 1872.

is due to those they have so ignorantly or so wickedly wronged. No one will hail that day more gladly than myself. Meantime, let us endeavour to understand the problem at present before us, and how to solve it.

I take it that every true Anthropologist wishes for the preservation of all the less civilized communities, not only on humane, but on scientific, grounds. Untainted by western civilization, they form the most interesting subjects of study. By acquainting himself with them in their environment, he will learn the mental and moral conditions through which the higher races (or varieties of men) pass. They will picture for him some, if not all, of the stages of human evolution. By reverent sympathy with modes of thought and feeling somewhat alien to his own, he will appreciate the long road of development by which mankind has travelled, and what have been its failures, gains, falls, risings, losses, and successes. Any and every way regarded, the study is a noble one, and inspires a rightly attuned mind with tender hope and earnest solicitude. That it widens almost infinitely the student's mental and moral area, follows as a matter of course.

Earnest historians of Humanity are every day learning something new, from not only the results of enquiries into pre-historic archaeology, but from the habits, modes of thought, and expressions of feeling of peoples in different latitudes, climates, and zones. Nothing is too trivial for their attention; games, proverbs, customs familiar or remote, rites of birth and marriage, or ceremonies of burial—all are noted, examined, and compared with a patience and insight one cannot sufficiently admire. Especially are the psychical characteristics of backward peoples brought under discussion and comparison. Whatever bears on the spiritual nature of man (by spiritual I mean the totality of his mental and moral manifestations) is recorded with a painstaking desire to render it due justice. It is beginning to be felt that the present can only be understood by the light of the past. Erudite men are bent upon tracing in our common games, proverbs, habits, and customs, their connection with a distant as well as different past. The labours of such men as Nilsson, Tylor, Lubbock, Morgan, McLennan, Bastian, Waitz, and many others, although vitiated in some respects by specialism, are worthy of all recognition.

It is beginning to be felt that you cannot divorce man from Humanity, nor study him to any good purpose, apart from his environment. But—and there is great danger that this may be forgotten—no science of mankind is possible, let your collections of skulls, flint, or bronze implements, be ever so great or perfect, without a full and exact knowledge of all the backward populations now existing. To attain this knowledge is the desire of all true Anthropologists. Many and prolonged are the efforts put forth to attain it, for it is beginning to be understood that from causes internal and external most of the populations are being scattered, and some are dying out. The external pressure comes from what is called western civilization—that is, from white settlers, who seize

such soil as they are able, and band themselves together to conquer the aborigines. If it be thought a good thing to influence Parliament for the preservation of cromlechs and like antiquities, how much better should it not be thought to preserve the remnants of races! How much there is to be learned from them! Surely tribes of men should not be thought less worthy of preservation and study than circles of stones; more especially by those who believe the tribes to be possessed of immortal souls!

Not only are large bodies of men dying out, but they are being exterminated by the white men. This is true to an extent but little realized. An audience of Anthropologists will not need me to name instances while Australia, America, Jamaica, and New Zealand are unforgotten countries; to say nothing of others. The perfidy of the white man has passed into a proverb—as being equal to his cruelty. What will not traders, colonists and squatters do for greed? And, when some enormous act of theft or rapine has been committed, is there not a gun or other weapon handy to destroy inconvenient witnesses, or contracting parties with whom good faith has been broken? Have not human beings, who, plundered and injured, took such revenge as they were able, been pursued and shot down as if they had been foxes or wolves? The whites in Tasmania have striven to extirpate the aborigines. Their reasons for doing so appear to be as just as those the wolf gave for killing the lamb—the lamb had given him trouble. Anthropologists should have something to say to the villainous French missionary intrigues at Peking, with the revengeful murders that followed them; * to the United States treatment of the Red Indians, of the *battues* of the Sioux and the Comanches when western men counted the “cows” and “calves” they butchered before breakfast; † to the coolie traffic in Queensland and Demerara; ‡ to the iniquitously broken treaties with the Maoris in New Zealand, § and to the abominable wars to which they gave rise; to the recent massacre of the Kookas; || and the frequent faithlessness and excessive cruelty that commonly characterised English rule in India. There are passages in Lord Elgin’s recently published memoirs which Anthropologists would do well to study. They reveal the dark moods of a great people under the rule of a foreigner. I give one as a sample.

During the Indian Mutiny Lord Elgin wrote from Calcutta:—“*It is a terrible business, however, this living among inferior races. I have seldom, from men or women, since I came to the East, heard a sentence which was reconcileable with the hypothesis that Christianity had ever come into the world.*”

* In the midsummer and autumn of 1870.

† Report presented to the United States Government by a Committee of the Society of Friends (I quote from memory).

‡ Report of the Royal Commission, and the 35th Annual Report of the Aborigines Protection Society.

§ New Zealand Parliamentary Papers, 1862. No. 10. Wars began in 1857, and ended early in 1861.

|| Supplement to the Gazette of India, May 4, 1872.

Detestation, contempt, ferocity, vengeance, whether Chinamen or Indians, be the object. There are some three or four hundred servants in this house. When one first passes by their *salaaming* one feels a little awkward. But the feeling soon wears off, and one moves among them with perfect indifference, treating them, *not as dogs, because in that case one would whistle to and pat them, but as machines, with which one can have no communion or sympathy.* Of course those who can speak the language are somewhat more *en rapport* with the natives, but very slightly, as I take it. When the passions of fear or hatred are grafted on this indifference, the result is frightful; and absolute callousness as to the sufferings of the objects of those passions, which must be witnessed to be understood and believed. —tells me that yesterday, at dinner, the fact that government had removed some commissioners who, not content with hanging all the rebels they could lay their hands on, had been insulting them by destroying their caste, telling them that after death they should be cast to the dogs to be devoured, &c., was mentioned. A reverend gentleman could not understand the conduct of the government; could not see that there was any impropriety in torturing men's souls; seemed to think that a good deal might be said in favour of bodily torture as well! These are your teachers, O Israel! Imagine what the pupils become under such leading." What hoarded mutual hate is shown by this quotation! How ought the English to act in such a relation? This question is not merely political, or racial—it is moral. What answer will Anthropologists make? Will they say that the English have no business in Asia? This may be true enough; but, being there, what should be their attitude? One of hostility and contempt towards a partially conquered race? or, one of conciliation and respect? Is it with nations as with individuals, that they hate those they have wronged? The existence of the two races in the same area is in peril. It concerns Anthropologists to show under what conditions, moral and social, they are to co-exist. Anthropology is worth little if it be not equal to the solution of such a question. If it be unable to solve the problem, what can? Can any of the known theological religions? I fear not; they do but complicate it. A religion founded on demonstration and in accord with the laws of man and society, pervaded by a noble disinterestedness and a loving respect for Humanity, either in its singleness or entirety, would meet not only this, but all other questions of a similar nature. It is possible that the Teutonic races (of which the English is said to be one) may have exaggerated ideas of their mission, political and religious, and that the races they rudely (not to say barbarously) subjugate may fail to perceive their universal adaptability. (One's way of looking at things is not precisely that of the garotter who robs or half murders one.) There may, of course, be only one civilization, and the Teutons may be its prophets. Those who do not acknowledge this, or proclaim it with due unction, may be—the greater part of the human race; so much the worse for them. The Teutons believe and act upon it. The god of battles (whoever he

may be) is on their side, aided by war *matériel*, and victory is always with the right.*

Let me hasten to acknowledge that some of the western powers are rising to a perception of their true position. Brutal as have been the means adopted in colonizing by the Dutch in bygone times, they are more humane now. Java is a proof of this.† The Danes, too, in Greenland, and in contact with the Esquimaux, do not forget altogether the ties that bind men of different kindreds in common brotherhood.‡

Traders with their rum bottles and diseases are fruitful causes at work in the extermination of some of the coloured populations of the globe. The depraved habits brought by debased persons belonging to western civilizations have worked terribly in certain directions; so terribly, in fact, as to make one ask whether trade or murder—or trade *and* murder—were their occupations? If they were, they have been cursed with success.

Annexation by the west of some of the backward peoples is another malign influence. It rarely or never takes place for the benefit of the aborigines, but of the white settlers who do not wish to be disturbed in the possession of their ill-gotten gains, or on behalf of what are called "commercial interests." Nearly all the wars of our times have arisen from this last source, and their moral enormity is hardly conceivable. When journalists talk of peace and commerce they are cynically hypocritical. That the two things may co-exist under different spiritual conditions to ours I do not doubt. Enough for us to see things as they are. Commerce, and the spread of commerce, means diverging and conflicting interests—individual and national heart-burnings—wide-spread jealousies and envyings, sund'ring men into opposing parties. Commerce, as we westerns understand and fashion it, brings "not peace, but a sword." It means the postponement of every human consideration and duty to the getting of ignoble wealth; it means the disregard of all obligations binding man to man, and the riding rough-shod over every generous instinct of humanity. That an excessive desire to spread commerce degrades men as much as drink, or any other sensual indulgence, can readily

* See an article entitled, "Government under Exceptional Circumstances," *Pall Mall Gazette*, 13th February, 1866: "We have bungled Ireland; we have bungled India; we have bungled Jamaica; we have mismanaged Celts, Kaffirs, Hindoos, Maoris, and Negroes; and all from the same cause—because we have refused to see that they were not Englishmen, or have fancied that we could make them Englishmen." See also "The Anglo-Saxon let loose," *Spectator*, 24th March, 1866. For a striking example of the evil effects accruing to native populations from the working of English laws, and the total want of any adaptation of them to a different state of society, see the judicious remarks of Mr. Gorst in his "Maori King," and our disgraceful laws respecting seduction and adultery, and their working among the aborigines of New Zealand. A great part of the difficulties as to the land question in New Zealand, both socially and politically, has also sprung from the unpliant character of English law and the neglect to adapt it by legislative enactment to native ideas and institutions.—*Note to Hutton's Essay in International Policy*, page 570.

† Wallace's *Malay Archipelago*, vol. i. cap. "Java."

‡ By implication, in Kane's travels.

be seen on reading the representations so frequently made to governments where its interests are concerned.* The persons making them seem destitute of every moral principle, and look on the universe as a place in which "the one thing needful" is to get rich. When a country is to be annexed, the condition of the aborigines is bad enough; after annexation it becomes worse; and they generally die out from brutal usage and despair. If, instead of annexation, the western powers constituted themselves a protectorate over the feeble ones, wherever found, making a duty of the axiom that "the strong should protect the weak," these powers would discharge a high function, and render humanity unforgetting services. One such example, exhibited in a spontaneous and disinterested spirit, would stimulate imitations from unsuspected quarters, and ensure the small states everywhere against the ambitious rapacity of the stronger.

There is another influence at work as potent for destruction, in the long run, as either of those already mentioned; I mean that which strives to change altogether the mental and moral natures of the backward peoples, with their environments. Such attempts have frequently been unsuccessful, especially with the older peoples. Little has been effected in this way with the Hindoos, the Chinese, or the Japanese. Consequently their civilizations stand intact, and the Anthropologist can study them without fear of vitiation from any source. They stand, like the colossus of Rhodes, uninjured by ignorant iconoclasts, however numerous or assiduous. They stand serenely calm, while generations come and go, empires rise and decay, and civilizations gather and vanish like "exhalations of the dawn." Even Time, the great effacer, cannot destroy them.

It is certainly worthy of remark that, although we have made every effort to poison the Chinese, we have not altered their faith in a single particular, nor converted them from their noble idealized Fetichism to the jargon of a disintegrating monotheism. Even our opium wars, undertaken solely for their benefit, have failed to secure their respect and affection. This is inexplicable; especially when we consider the forbearance, goodness, and honesty shown to them by our merchants established on their settlements, in all their commercial and social relations. Asiatic nature is ungrateful!

India affords the Anthropologist an almost unbounded field for observation and reflection. Although nominally conquered, she is not so in reality. The domination of an alien race has done her widespread, but, let us hope, temporary injury. The future of India depends upon the restoration of her old legal and other customs and privileges, the revival of her village system and modes of judicature, and the gradual modification of all that is western and foreign. The expansive and comprehensive religion of Buddha suffers little or nothing by western contact, having acquired its present colour and form ages long ago; whatever may be said as to the modifiability of Brahmanism. There may, and very probably will, come

* See especially Parliamentary Paper, China (10), 1870.

a time when western civilization may be of great service to all the less civilized communities, but that civilization must become human; and, when it is human, I believe it will penetrate them profoundly and extensively, for the benefit of humanity at large.

Japan offers also a problem to the *savant*. Her political and religious institutions are ancient, while her social unity is greater than that of the Chinese; and, as her army is numerous, well-disciplined and appointed, it is possible she may escape western civilization with all the softening amenities of western commerce.

As has been said, China and Japan offer splendid examples of Fetichism (in its idealized forms) for the student of Anthropology. But there are other and smaller communities exhibiting less solidarity and continuity of a very interesting character. The habits of thinking and living common to them are being disturbed and destroyed by western contact. If Anthropologists do not bestir themselves, they will find only depraved and feeble copies of western manners and life. The introduction of western theology revolutionizes, but does not reform. It is in no sense adapted to the backward peoples. It is too complex, too abstract, and too metaphysical. Its theories of this and another mode of being have little attraction for a certain order of minds, being too material and too ethereal, as well as too remote. It offers little that is simple, concrete, or immediate. It takes from the peoples *all*, and gives them what is practically worthless. The old faith so suited to their culture (its outgrowth in fact), which met all their spiritual needs, is rudely destroyed, and the new faith is not adapted to them. Even its novelty tires and perplexes them; and novelty is strongest in such natures. They wear the creeds, as they wear European costumes, grotesquely. They lose their picturesqueness; and, losing that, — ? It must be so from the nature of the case. Theology, whether monotheistic or polytheistic, is a growth natural to the soil of the western races. It is the result of many slow elaborations, moral and mental, throughout past centuries. It took the place of moribund civilizations, and established a faith and an order that, in these days even, counts many millions of adherents. It *was* both a system of thought and life, exercising a power as universal as it was beneficial. I will say nothing of what it is now. The rise and growth of positive science have altered it and our attitude towards it. But, when Catholicism was a power in the west, missionaries of another sort than those we wot of* went out into China, Japan, and India,—without purse or scrip, kith or kin, holding their lives cheaply, valuing only the gospel of good will they practised. These missionaries settled amongst alien peoples and races, lived in their midst, exposed to hardship and death, counting themselves as “dross and dung,” so that they might win souls and encircle warring tribes in the bonds of piety and peace. The memories of their devoted lives and unselfish goodness abide where they laboured,

* I speak broadly, and am not unmindful of the zealous labours of a few Protestant missionaries, such as Meadows, Moffatt, Ellis, Spence Hardy, and Legge.

being handed down as heirlooms from generation to generation. "Their works do follow them," although the peoples amongst whom they died have returned to their old faiths and simple practices.

It requires a mental and moral effort to realize the Fetichistic state if only for a brief while, our whole habits of thought and feeling being so opposed to it. And yet it deserves more sympathy and respect than it commonly meets with. From the purely human point of view it is that best adapted to the backward peoples, inasmuch as it fosters and exercises their entire spiritual natures in a way no other faith seems capable of doing. The blunder of theologians lies in thinking that man is an exception to physical laws and historic processes, and that he can adapt himself off-hand to any new moral system with its corresponding beliefs and practices. You might as well expect birds to live in water and fishes in air. And yet, through long courses of adaptations, even these apparently impossible things may be brought about. It must never be forgotten that man, over and above his physical, has psychical wants,—these wants being of a definite character and suited to his *habitat*. Neither the organism nor the *habitat* can be altered but by slow and almost imperceptible processes, for nature makes no leaps, however much man may wish her. Time with her is a matter of but small consequence; she makes nothing of ages, and knows not of hurry. Fetichism was the spiritual condition of myriads of persons hundreds of thousands of years before Greece and Rome were. Although these reached the highest conditions of civilization in ancient times, Fetichism permeated their beliefs and life, as Greek myths, with their innumerable gods and goddesses, and the fables with the Lares and Penates of Rome, bear witness.

Western theology acts not only as a disturbing element, but as a solvent. Fetichism once destroyed, what is there to take its place? Nothing! (I am regarding this question purely from the standpoint of the less civilized communities; the other side has had its say.) What is the consequence? The old beliefs and moral sanctions gone, the new order of belief but poorly apprehended, and its sanctions but dimly appreciated, the peoples fall back upon their passions, disorganized, anarchic.

There is much real pathos in a letter, written in 1848, to the Governor of New Zealand by a native chief (Tamati Ngapora), who was, and has always continued, friendly to Europeans. He wrote:—

"Friend, the Governor,—This is my speech to you. Harken to my word, O friend. Do not slight my thoughts, because this is the thought of many of the chiefs of New Zealand. This is the thing that causes confusion at all their villages, namely, what I am about to state to you. Formerly, O Father the Governor, when we adhered to our native customs, we had light on this subject, but now this land is mixed up with the customs of Europeans, new thoughts or habits have been imbibed, and darkness has ensued in consequence. I wish to make known my thoughts to you in this matter, that you may hear them and give some light on my sentiments. The slaves of my village will not obey me; when I ask them to work they will not regard me; the result of this conduct is theft and adultery. I cannot determine in these matters. In your estimation perhaps these are trifles, but to me they are great things, because they affect the welfare of the chiefs. For—

merly brave people were considered in the light of chiefs, but now they are considered as nothing. You Europeans have effected this change. It is for you, the prop of this people, to lay down certain laws to meet these cases." *

Distinguished travellers and Anthropologists declare (I am referring to Captain Burton and Mr. Winwood Reade) that Christianized Africans are less chaste and sober than those not Christianized, and value the Sabbath, on which they are told not to work, mainly as a means for increasing the price demanded for labour done on that day. They have discovered, too, that the soul is a good thing as a marketable commodity, and the prices for their piccaninnies have risen in consequence.

Numerous instances of a similar sort could be given did time permit. An illustration of quite another kind shall suffice. The Sandwich Islanders have adopted western customs and habits with, as far as they understood them, western creeds. The consequence is that their populations decline rapidly, and another generation may expect to see them improved off the face of the earth. Is that a desirable result? If it be, Torquemada was right when he burned the bodies of heretics to save their souls.

Hitherto I have regarded this subject as a mere student of Anthropology. I have endeavoured to show that any interference *as at present understood*—undertaken from motives or intentions howsoever good—acts injuriously on the backward peoples of the globe. Further, I have tried to show that disturbance deranges the conditions under which they can best be studied. No Anthropologist but must wish to preserve intact the peoples and their environment, to the end that his science may be perfected. He who would study less civilized communities apart from their surrounding mental and moral condition writes himself down an ass. No rational study of the simplest organism can be wrought out without the fullest and exactest knowledge of its *habitat*.† But Anthropologists are not only students, they are men under deep moral as well as intellectual obligations to preserve the less civilized communities as parts of the great living whole—Humanity. These communities reflect the spiritual conduct of our ancestors thousands of times removed. We have passed through the same stages of development,

* Quoted in *Essays on International Policy* (H. D. Hutton's Essay), page 539.

† "If there is one thing rather than another to which the grand law of continuity of development will apply, it is to human progress. There are certain stages through which society must pass in its onward march from barbarism to civilization. Now, one of these stages has always been some form or other of despotism, such as feudalism or servitude, or a despotic paternal government; and we have reason to believe that it is not possible for humanity to leap over this transition epoch and to pass at once from pure savagery to free civilization. The Dutch system attempts to supply this missing link, and to bring the people on by gradual steps to that higher civilization which we (the English) try to force upon them at once. *Our system has always failed. We demoralize and we extirpate, but we never really civilize.* Whether the Dutch system can permanently succeed is but doubtful, since it may not be possible to compress the work of ten centuries into one; but at all events it takes nature as a guide, and is therefore more deserving of success and more likely to succeed, than ours."—Wallace's *Malay Archipelago*, vol. i., pp. 402, 3.

physical and moral, and are what we are to-day because they lived, toiled, suffered, and endeavoured. Our wondrous civilization is the result of the silent efforts of millions of unknown men, as the chalk-cliffs of England are formed of the contributions of myriads of foraminifera.

What, then, is the duty of Anthropologists towards the less civilized? the duty of the strong towards the weak? the duty of the highly cultured to the less cultured? The duty of protection. It should ever be the aim of the Anthropologist to defend them by voice and pen. Their wrongs are many and need redress. Too long have all their claims, social and moral, been ignored or deferred. Common justice demands that those who understand them best should plead their cause and see them righted. Whatever stands in the way—whether it be commercial, theological, or emigrational interests—away with it. *Fiat justitia ruat cælum*. Let us hear no more of the vicious fatalistic talk about its seeming to be the design of a mysterious, but all-wise, Providence that, wherever the superior races intrude the inferior die out. Such a Providence would be too one-sided to be all-wise, and its mysteriousness may be questioned where it favours so absolutely the intruding races. The cant is abominable, and covers a multitude of enormities. It is oftenest in the mouths of those who work violence and rapine, and is a nice sop for a dulled or dying conscience. If the inferior (?) races have no confidence in the superior (?) races, whose fault is it? What has caused this breach? Has not the white man made use of his greater cunning to cheat—strength to slay—or otherwise injured the dark man? Yes, again and again, yes! And are Anthropologists to champion the wrong-doer and to side with the oppressor? Rather let them discharge nobler functions, and resent the wrongs so inhumanly inflicted.

Nature's methods are cruelly stern; there is no need of man's supplementing them. The less civilized die out fast enough from internal causes. "Survival of the fittest" may, for aught I know, be a law equally applicable to man as to the rest of the animal kingdom; equally it may be a law for "the weak to go to the wall." These laws operate in civilized communities as in the others. But is it not the constant aim of the right-minded and good-hearted to modify and soften the action of external forces? Does not the prevalence of a noble sentiment prompt us to be tender, pitiful, compassionate, and patient, wherever physical weakness is concerned? Do not hospitals, infirmaries, and a thousand homes testify, in a dim and imperfect way it may be, to our endeavour to render the inevitable mild and tolerable? Is not that people counted happy amongst whom the means for annihilating, or alleviating, pain exists in the greatest number? I will not insult your understandings by pursuing the comparison further.

Anthropologists should urge upon the western governments the policy of preserving the backward races and of protecting them against the lawless of whatever colour or race.

It has often been said that the less civilized communities are most

like children. I am not sure that the statement is true, but accept the comparison; let them be treated as children. They often have all the good and some of the bad points of children, and need large allowances for their ignorance and failings. As we have neither ignorance nor failings, the allowances can easily be made.

If Anthropologists take the position already indicated, they will render Humanity noble services. They will do somewhat—it can, at best be little—to pay the “debt immense of gratitude” they owe to her. It is from her, past or present, everything comes; to her everything is owing. To her service should be consecrated every power and faculty of the mind. Life, health, culture, social influence, spiritual force, serve good ends only when they serve her. The highest function of knowledge should be to acquaint us with our duties and the best modes for discharging them. If other use it have, it is that of making us humble, reverent, and teachable. What nobler avocation is there than that of sympathising with all forms of culture, all modes of life, all conditions of civilization, no matter how backward, that exist, or may yet exist, throughout the world? Such “love of one’s own kind” transcends almost infinitely all other loves, ennobling and sweetening the characters of the possessors for ever.

DISCUSSION.

The thanks of the Meeting having been voted to the Authors,

Dr. CARTER BLAKE wished that a subject of Anthropological interest could be treated without ethical or philanthropic considerations. The duty of the conquering race appeared to be to make the best of the conquered, and to exterminate any of the noxious tribes who might claim to be brethren, and by treachery or violence injure the European settlers. Past experience had shown us the evils which had been produced by pampering the feelings of the aborigines or their friends. India had nearly been lost to the English crown, and might yet be imperilled, as the policy of “clemency” Canning and his successors had practically reversed that of O’Neill and Hodson. Jamaica had been lashed into insurrection by home gold; and it was significant that the illustrious man (Governor Eyre) who had protected the aborigines in Australia was forced to act with decision in 1866. In New Zealand, the treachery of the Maoris (for which he begged to refer to the Parliamentary papers) rendered any treaty with them of no value. Justification had even been pleaded on behalf of the Modocs; and a future generation might erect “Nasty Jim” and “Captain Jack” into saints and martyrs. Dr. Carter Blake wished that philanthropists at home could see the “noble savage” in Central America; and he thought that they would then admit that the sooner he was improved off the better. He said this, not because it was the *kismet* of the white race to destroy the aborigines, but because the aborigines were practically in

the way. Coolie emigration to Guiana had not proved such a failure; and the imported slaves, as they might be called, were able at least to send money to their relatives. Slavery and the slave trade were no doubt becoming extinct, as they were expensive and costly errors in the nineteenth century. But in many parts of the world that which in the West Indies might have been a financial mistake became the only practical means for enabling the negro to become of use to Europeans.

Mr. Lewis said they had two papers before them, one written, he might say, from a purely heathen point of view, and the other from a relatively Christian point of view, and, as often happened, the views of the heathen were more in accord with Christianity than those of the Christian. He thought, however, Christianity had little to do with matters of law, government, or war, the doctrines of the sermon on the mount being undoubtedly the true ideal of Christianity, the intention of which was not stated to be the conversion of the world *at the present time*, but the gathering out of believers from all races for a future kingdom. He then specified a number of details in Dr. Inman's paper in regard to which he entertained a different opinion to that author; and said that Dr. Kaines had assumed as a fact the hypothesis of man's development from some inferior creature, that he thought the British Government had at least done as much good as it had done harm in India, and that the Oriental nations had quite as much theology as the western. Mr. Lewis referred, in conclusion, to Dr. Simms' address to the preceding meeting, as showing that "extra-western communities" were amenable to fair treatment, and as illustrating the manner of their disappearance.

The PRESIDENT said he agreed in the main with Dr. Kaines as to the duties of western Anthropologists to less civilized communities. One remark as to the conduct of the Dutch in the East. The Dutch are a very good people in their own country, but in the islands occupied by the Papuan race they had destroyed the produce of the country in order to compel the natives to import Dutch products.

Dr. KAINES, in replying to the objections of Dr. Carter Blake, said he could not discuss "subjects of Anthropological interest" apart from moral and humane considerations, and he cared little for the Anthropology from which such considerations were divorced. Dr. Kaines fondly thought that there was a Science of Morals. It was a manly Roman who said, "*Homo sum : humani nihil a me alienum puto.*" Dr. Kaines agreed with Dr. Blake, that it was "the duty of the conquering race to make the *best* of the conquered." This could only be accomplished by civilizing in a large, humane way the aborigines whose soil "the race" has encroached upon. This duty could not be discharged by its ignoring the humanity common to them both, "to exterminate the noxious tribes who might claim to be brethren." Dr. Kaines was not aware that the "noxious tribes" were in the habit of claiming white men as brethren. Abel may have urged his brotherhood upon Cain while Cain was murdering him; to no good result as it appeared. Where "the brethren" Dr. Blake contemns

have shown "treachery or violence," they had paid in *kind* the white settlers. What was meant by "pampering the feelings of the natives" Dr. Kaines did not know. The forms such "pampering" ordinarily took were the extermination of "noxious tribes." It was of such an evil the friends of the aborigine complained. Surely "pampering" was rather an unhappy word for a white man to use to describe the murder by other white men of the aborigines, their wives, and children; to say nothing of the wholesale robbery perpetrated. Dr. Blake said correctly that "India had nearly been lost to the English crown." Those *familiar* with the history of British rule in India would hardly say that it had erred on the side of "clemency." "Clemency" rarely became intolerable to those to whom it was shown. In an ordinary way human nature bore it easily; and, if the natives of India had risen against the English, they had done it for lack of "clemency." What was meant by the assertion that "Jamaica had been lashed into insurrection by home gold" Dr. Kaines did not know, and he congratulated Dr. Blake upon the original discovery he had made. Whatever ex-Governor Eyre might have done in Australia, his conduct in Jamaica had been condemned by the highest legal and highest moral authorities in Great Britain; and he certainly had become "illustrious" in a way no wise or humane man would wish to be. The treachery of the Maoris in New Zealand had been provoked by the greater treachery of the settlers. Dr. Kaines had already referred to the Parliamentary papers. Justification had "not" been pleaded on behalf of the Modocs, and no future generation would "erect 'Nasty Jim' and 'Captain Jack' into saints and martyrs;" but the verdict of history would not be on the side of those who provoked the Modocs to make such terrible reprisals. The "noble savage" of Central America, debased by western contact, might be an object rather for tender pity on the part of the philanthropist. Rochefoucault said we always hate those we have injured. This would, perhaps, account for Dr. Blake's pious wish that the "noble savage" should be "improved off" (by which he means killed off). In spite of Dr. Blake's disclaimer, "it *was* the '*kismet*' of the white race to destroy the aborigines," who "were practically in the way," whatever that might mean. Naboth was "in the way" when Ahab wanted his vineyard; and Ahab took measures accordingly, much to the advantage of Jezebel's and his own dynasty! "Coolie emigration to Guiana," as Dr. Blake well observed, "had not proved such a failure"—to the scoundrelly traders who carried it on. "And the imported slaves, as they might be called," (!) "were able at least to send money to their relatives," which Dr. Blake regards as a sign of prosperity. It might be such a sign, but it was hardly one that will make up for loss of liberty, home, wife, children, and country, on the part of the Coolies, and the loss of every attribute of Humanity on the part of those who imported them. Dr. Blake seemed to think that nothing was so noteworthy about "the error" of the slave trade, as he called it, as its "expensiveness and costliness." Its criminality was to him not worth mentioning. Indeed, he seemed

to justify it on the score that it was "the only practical means for enabling the negro to become of use to Europeans." By the word "Europeans," Dr. Blake seemed to mean traders; and the prosperity of traders would appear to be more desirable than that of Humanity at large. Further comment would be superfluous.

Dr. KAINES replied briefly to some observations from Mr. Lewis and Dr. Charnock.

ORDINARY MEETING.

Held at 37, Arundel Street, Strand, London, on Tuesday, 16th December, 1873, at 8 p.m.

Dr. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

THE Minutes of the preceding Meeting were read and confirmed.

Presents announced:—

For the Library,—The Dictionary of Languages, from the publishers, Messrs. Hall & Co.

The thanks of the Society were voted to them.

The collection of weapons, photographs, &c., from West Africa, presented by Dr. R. B. N. Walker, was exhibited.

Consul T. J. Hutchinson, F.R.G.S., exhibited a drawing of an African house ornamented with skulls.

The Treasurer read the following paper:—

A TRUE CEREBRAL THEORY NECESSARY TO ANTHROPOLOGY.*

BY J. KAINES, DOCT. SCI., M.A.

THAT Anthropology or the science of mankind cannot be more than instituted as a science, while physiology or the science of individual life is incomplete, is a truth beyond question. The human unit is a cell of the social organism, and how that organism will act we cannot tell till we know how the cell will act.

Physiology has made great advances under the impulse given to it by Bichat, and the knowledge of the relations of the various parts of the human organism to itself as a whole, as well as to biological science in general—of which the human whole is but a part—has immensely widened and deepened.

* Read before the Anthropological Department of Section D, Biology, of the British Association, at Bradford, 1873.

Indeed, biology has become a positive science to the extent that it has discarded the various theological and metaphysical fictions and entities which characterised its early stages, as of the rest of the preceding sciences. To render human and comparative physiology complete, cerebral physiology—popularly known as phrenology—must acquire positivity, and it is hardly likely to acquire positivity while its claims are ignored or its pretensions made capital of by mere quacks. Phrenology is the only *de facto* science of mind which has a physiological basis. Certain so-called sciences of mind start with theological and metaphysical data, and of such data no real science is possible. The *soul*, whatever it may be, is not susceptible of physiological analysis, and, as an entity, may be placed in the heart, pancreas, or pineal gland. Of small consequence, indeed, is it to the physiologist where the entity is placed; one part of the body is as good, or as bad, for it as another. As for metaphysics, the discussion of the *ego* or *non-ego* is a matter which may perhaps fairly concern an organism of the zoological scale of sufficiently degraded nervous structure that it is in danger of mistaking another creature for itself. As dogs and cats, however, have escaped this stage of mental imbecility, there seems small danger of man's reaching it, except, of course, in madness. "It is probable," says Auguste Comte, "that among the superior animals the sense of personality is still more strongly marked than in man, on account of their more isolated life." The interior observation, once so much in vogue—and still so among the intellectually feeble—is falling into disrepute. The absurdity of a man suspending intellectual operations while he observed how such operations were carried on, seems to have penetrated even the dulness of metaphysicians. "Interior observation promises good results amongst the lowest animals whose intellectual action is of the simplest, but it is precisely to this class that metaphysicians are disposed to deny the possession of reason, although naturalists have proved that they possess reason. Broussais observed that such a method (that of 'interior observation'), if possible, would extremely restrict the study of the understanding, by necessarily limiting it to the case of adult and healthy man, without any hope of illustrating this difficult doctrine by any comparison of different ages, or consideration of pathological states, which yet are unanimously recognised as indispensable auxiliaries in the simplest researches about man."

If a science of mind could be made of mere words, theology and metaphysics would furnish abundant material. Physiologists admit that the brain case indicates, broadly but surely, savagery or civilization. Whether the "bony casket" indicates dolichocephaly or brachycephaly, or its facial angle be prognathous or orthognathous, it can be ascertained with certainty if it belongs to a high or low type of civilization. Further, the skull indicates the race, age, sex, and habits, carnivorous or herbivorous, of the person to whom it belonged. So much was known prior to Gall's time,—it was left to Gall to create the science of cerebral physiology, which

he called "Organology" (not Phrenology), both in his first great work, and in the second and more popular one on the "*Fonctions de Cerveau*." Their publication marked an era in science. They were, as is usual in such cases, publicly and privately assailed by the *savans* then living, amongst whom was the distinguished Baron Cuvier. The objections of this eminent French naturalist were replied to by Gall fully and incisively; as, indeed, were those offered also by less eminent men. The French Institute, stung by a remark of Napoleon's, did what it could to crush Gall's doctrine. Established priesthoods, whether of science or religion, naturally view with marked disfavour all new truth. *E pur si muove*. The thing was organic, and was not to be disposed of by mere criticism of details. It offered a *natural* explanation of psychical phenomena as opposed to other pretended explanations, in which the original difficulty is merely re-stated in different words. On the Continent Gall's Organology created everywhere a profound impression, and his many and remarkable illustrations of its truth astonished and puzzled some, while they convinced thousands of persons of all grades of culture and of no culture. In Great Britain Gall's *collaborateur*, Spurzheim, spread abroad, by his lectures and dissections of the brain, a knowledge of Gall's doctrine, and his zealous efforts were seconded by Combe, Elliotson, Bray, and many other thinkers. Phrenology—under which name Organology is known in Great Britain and nowhere else—promised to become a true, and at the same time a popular science. Its popularity has somewhat declined, although it still counts tens of thousands of adherents, amongst whom are many medical men and physiologists. But the test of a doctrine is not who believes in it—but is it true?

An eminent modern thinker—A. Bain—says in his work on the "Study of Character," that the fundamental position of phrenology is demonstrated, but not *over* demonstrated. I do not know what he means by *over* demonstration, and I am not aware that biological phenomena, which are the most complex of all phenomena, (and the phenomena of cerebral physiology the most complex of biological phenomena), admit of being more than demonstrated. Sure I am that in physics, in which demonstration reaches its highest degree of certainty, *over* demonstration is not possible; and the phenomena of physics, compared with biological phenomena, are very simple indeed.

The only *just* criticism of Gall's Organology—as it seems to me—is that of M. Comte in his *Philosophie Positive*, tome iii, "Biologie." It points out what appears to be the anatomical weaknesses of Gall's doctrine—namely, that of making too many elementary faculties,—while it recognises, in a full and honourable way, the rigidly scientific character of its physiological basis. Comte says, "Two philosophical principles, now admitted to be indisputable, serve as the immovable basis of Gall's doctrine as a whole, viz.: the innateness of the fundamental dispositions affective and intellectual, and the plurality of the distinct and independent faculties, though real acts usually require their more or less complex concurrence.

Within the limits of the human race, all cases of marked talents or character prove the first; and the second is proved by the diversity of such marked cases, and by most pathological states,—especially by those in which the nervous system is directly affected. A comparative observation of the higher animals would dispel all doubt, if any existed in either case. These two principles—aspects of a single fundamental conception—are but the scientific expression of the results of experience, in all times and places, as to the intellectual and moral nature of man,—an indispensable symptom of truth, with regard to all parent ideas, which must always be connected with the spontaneous indications of popular reason, as we have seen in preceding cases in natural philosophy. Thus, besides all guidance from analogy, after the study of the animal life, we derive confirmation from all the methods of investigation that physiology admits, from direct observation, experiment, pathological analysis, the comparative method and popular good sense,—all of which converge towards the establishment of this double principle. Such a collection of proofs secures the stability of this much of phrenological doctrine, whatever transformations other parts may have to undergo. In the anatomical view, this physiological conception corresponds with the division of the brain into a certain number of partial organs, symmetrical like those of the animal life, and, though more contiguous and mutually resembling than in any other system, and therefore more adapted both for sympathy and synergy, still distinct and mutually independent, as we were already aware was the case with the ganglions appropriate to the external senses. In brief, the brain is no longer an organ, but an apparatus of organs, more complex in proportion to the degree of animality. The proper object of phrenological physiology thence consists in determining the cerebral organ appropriate to each clearly marked simple disposition, affective or intellectual, or, reciprocally, which is more difficult, what function is fulfilled by any portion of the mass of the brain which exhibits the anatomical conditions of a distinct organ. The two processes are directed to develop the agreement between physiological and anatomical analysis, which constitutes the true science of living beings. The scientific principle involved in the phrenological view is that the functions, affective and intellectual, are more elevated, more human, if you will, and at the same time less energetic, in proportion to the exclusiveness with which they belong to the higher part of the zoological series, their positions being in portions of the brain more and more restricted in extent, and further removed from its immediate origin, according to the anatomical decision that the skull is simply a prolongation of the vertebral column, which is the primitive centre of the entire nervous system. Thus, the least developed and anterior part of the brain is appropriated to the characteristic faculties of humanity, and the most voluminous and hindmost part to those which constitute the basis of the whole of the animal kingdom. . . . In a scientific view, it would suffice to say that the first and fundamental class [of faculties]

relates to the individual alone, or at most to the family regarded successively in its principal needs of preservation, such as reproduction, the rearing of young, the mode of alimentation, of habitation, &c. Whereas, the second more special class supposes the existence of some social relations, either among individuals of a different species, apart from sex, and determines the character which the tendencies of the animal must impress on each of these relations, whether transient or permanent. If we keep this distinctive character of the two classes in view, it will matter little what terms we use to indicate them when once they shall have acquired a sufficient fixedness, through rational use. These are the great philosophical results of Gall's doctrine, regarded, as I have now presented it, apart from all vain attempts to localize in a special manner the cerebral or phrenological functions."

Previous to Gall, physiologists generally, if not universally, treated the brain as a single organ, representing the intellectual faculties alone. The passions and emotions were distributed "among the organs pertaining to the vegetative life, the heart, liver, &c. Bichat supported this view by the argument of the sympathies of these organs under the excitement of the passions; but the variableness of the seat of sympathy, according to native susceptibility or to accident, is a sufficient answer to such a plea, and teaches us simply the importance of considering the influence exercised by the state of the brain upon the nerves which supply the apparatus of organic life." The researches of Gall prove that the brain is a dual organ (or dual congeries of organs), and that this organ acts affectively as well as intellectually. Of these functions the affective is the most strong, while the intellectual is, comparatively speaking, feeble. Experience constantly confirms the truth of this division by showing that the least noble function is the stronger.

The varying predominance of the faculties at different times is explained by their *active* and *passive* states. To illustrate this, Gall supplies a large array of facts from natural history, as well as from human individual experience.* Moreover, "he has shown how human action depends on the combined operation of several faculties; how exercise develops them; how inactivity wastes them; and how the intellectual faculties, adapted to modify the general conduct of the animal according to the variable exigences of his situation, may overrule the practical influence of all his other faculties."

* The observation and comparison of the intellectual and moral faculties of animals, as expressed by their physical organization, so admirably initiated by Gall, have borne good fruit; and although later naturalists—Lamarck, Huber, Leroy, Darwin, De Blainville, and Wallace—have given a new direction to such studies by their large physiological generalizations of the action of physical conditions, external and internal, in modifying existing species, Gall's experiments have a freshness and reality about them not common to works on natural history; and the student who reads the *Fonctions de Cerveau* will be struck by the largeness and novelty of the views therein expressed, and their resemblances to those held by eminent living thinkers and observers.

Such are the physiological bases of phrenology. A thoughtful study of the science will show what each section of mankind brings to our civilization, and the reasons why some of the faculties of man have been so unequally developed will be found in his unequal civilization. Investigation of this sort belong to comparative anthropology, and my limited space will not permit my treating of them here.

What are the objections to phrenology? what are its characteristic weaknesses as a science?

Mr. G. H. Lewes states them very forcibly and clearly in his review of Gall's doctrine.* In Mr. Bains' "Study of Character" he endeavours to show also, with great plausibility, that the number of Gall's elementary or fundamental faculties is too large, and that their multiplication rather lessens than increases the value of his doctrine.

M. Comte remarks on the serious objection to Gall's doctrine arising out of his venturesome and largely erroneous localization of the faculties, and, in answer to the question, What are the indispensable improvements that it demands? he says: "First, we want a fundamental rectification of all the organs and faculties, as a necessary basis for all further progress. Taking an anatomical view of this matter, we see that the distribution of organs has been directed by physiological analyses alone, usually imperfect and superficial enough, instead of being subjected to anatomical determinations. This has entitled all anatomists to treat such a distribution as arbitrary and loose, because, being subject to no anatomical consideration about the difference between an organ and a part of an organ, it admits of indefinite subdivisions, which each phrenologist seems to be able to multiply at will. Though the analysis of functions no doubt casts much light on that of organs, the original decomposition of the whole organism into systems of organs, and those again into single organs, is not the less independent of physiological analysis, to which, on the contrary, it must furnish a basis. . . . Nothing, therefore, can absolve the phrenologist from the obligation to pursue the analysis of the cerebral system by a series of vigorous anatomical labours, discarding for the time all ideas of function, or, at most, employing them only as auxiliary to anatomical exploration. Such a consideration will be most earnestly supported by those phrenologists who perceive that, in determining the relative preponderance of each cerebral organ in different subjects, it is not only the bulk and weight of the organ that have to be taken into the account, but also its degree of activity, anatomically estimated by, for instance, the energy of its partial circulation.

"Next, following a distinct but parallel order of ideas, there must be a purely physiological analysis of the various elementary faculties; and in this analysis, which has to be harmonized with the other, every anatomical idea must be, in its turn, discarded. The

* *I*vide his remarkable History of Philosophy, 3rd ed., vol. ii.

position of phrenology is scarcely more satisfactory in this view than any other, for the distinction between the different faculties, intellectual and even affective, and their enumeration are conceived in a very superficial way, though incomparably more in the positive spirit than any metaphysical analysis. If metaphysicians have confounded all their psychological notions in an absurd unity, it is probable that the phrenologists have gone to the other extreme in multiplying elementary functions. Gall set up twenty-seven; which was, no doubt, an exaggeration to begin with. Spurzheim raised the number to thirty-five; and it is liable to daily increase for want of a rational principle of circumspection for the regulation of the easy enthusiasm of popular explorers. Unless a sound philosophy interposes to establish some order, we may have as many faculties and organs as the psychologists of old made entities. However great may be the diversity of animal natures, or even of human types, it is yet to be conceived (as real acts usually suppose the concurrence of several fundamental faculties) that even a greater multiplicity might be represented by a very small number of elementary functions of the two orders. If, for instance, the whole number were reduced to twelve or fifteen well-marked faculties, their combinations, binary, ternary, quaternary, &c., would doubtless correspond to many more types than can exist, even if we restricted ourselves to distinguishing, in relation to the normal degree of activity of each function, two other degrees—one higher and the other lower. But the exorbitant multiplication of faculties is not in itself so shocking as the levity of most of the pretended analyses which have regulated their distribution. In the intellectual order especially the aptitudes have usually been ill described, apart from the organs; as, when a mathematical aptitude is assigned on grounds which would justify our assigning a chemical aptitude, or an anatomical aptitude, if the whole bony casket had not been previously parcelled off into irremovable compartments. If a man could do sums according to rules quickly and easily, he had the mathematical aptitude, according to those who do not suspect that mathematical speculations require any superiority of intellect. Though the analyses of the affective faculties, which are so much better marked, is less imperfect, there are several instances of needless multiplication in that department. . . . *Phrenological analysis has, then, to be reconstituted; first, in the anatomical, and then in the physiological, order, and, finally, the two must be harmonized; and not till then can phrenological physiology be established upon its true scientific basis.*

“The phrenologist must make a much more extensive use than hitherto of the means furnished by biological philosophy for the advancement of all studies relating to living bodies; that is, of pathological, and yet more of comparative, analysis. The luminous maxim of M. Broussais,* which lies at the foundation of medical philosophy, *that the phenomena of the pathological state are a simple*

* “L'Irritation et la Folie.”

prolongation of the phenomena of the normal state, beyond the ordinary limits of variation, has never been duly applied to intellectual and moral phenomena; yet it is impossible to understand anything of the different kinds of madness if they are not examined on this principle. Here we see that the study of malady is the way to understand the healthy state. Nothing can aid us so well in the discovery of the fundamental faculties as a judicious study of the state of madness, when each faculty manifests itself in a degree of exaltation which separates it distinctly from the others. There has been plentiful study of monomania, but it has been of little use, for want of a due connexion and comparison with the normal state. . . . If our existing phrenology isolates the cerebral functions too much, it is yet more open to reproach for separating the brain from the whole of the nervous system. Bichat taught us that the intellectual and affective phenomena, all important as they are, constitute, in the whole system of the animal economy, only an intermediate agency between the action of the external world upon the animal, through sensorial impressions, and the final reaction of the animal by muscular contractions. Now, in the present state of phrenological physiology, no positive conception exists with regard to the relation of the series of cerebral acts to this last necessary reaction. We merely suspect that the spinal marrow is its immediate organ. Even if cerebral physiology carefully comprehended the whole of the nervous system, it would still, at present, separate it too much from the rest of the economy. While rightly discarding the ancient error about the seat of the passions being in the organs of the vegetative life, it has too much neglected the great influence to which the chief intellectual and moral functions are subject from other physiological phenomena; as Cabanis* pointed out so emphatically while preparing the way for the philosophical revolution which we owe to Gall."

Such is the estimate formed of phrenology by the greatest philosopher of our time. Comte's indications of its deficiencies as a science, and by what method it may be perfected, especially anatomically, have, I fear, escaped the attentions of phrenologists, for cerebral physiology has made but little advance since its first initiation by Gall and Spurzheim. To render phrenology a positive science demands, no doubt, large and finely-disciplined intellects—"strong minds prepared by a suitable scientific education"—a rarity, especially in these days, or Anthropology would hardly be the incomplete and inexact science it is. It would, of course, be unreasonable to expect the science of mankind to be more advanced while the science of physiology, upon which it depends, has not entered upon its last stage of positivity.

Towards the close of the last century two thinkers, eminent amongst others then living, both of whom were emancipated from theological ideas, addressed themselves to the task of interpreting, in a natural way, mind, and the progress of the human mind.

* "Les Rapports du Physique et du Morale de l'homme."

Helvetius attempted to base a science of mind on egoism, and to show that man's best and worst acts—his heroisms and his meanesses—were prompted by mere self-love. The ability with which such a startling paradox was maintained is well known, and the paradox had an attraction for minds of a certain order. Helvetius himself was, so Marmontel says in his inimitable *Memoirs*, a living contradiction to the hypothesis he maintained. The other and greater thinker was Condorcet, and his enquiry into the progress of the human mind is a work of a nobler order and more elevated quality. Condorcet believed in human perfectibility; and his posthumous treatise was written while he was endeavouring to hide himself from the authors of the September massacres. A fine pathos marks its concluding paragraphs, wherein he expresses his undying faith in the large future of Humanity, and the consolations it brought to him. Both of these works—widely opposed as were their fundamental positions—were vitiated by the metaphysical fictions upon which they were based. That man has benevolent instincts, and that these instincts are not the promptings of self-love, we know as truly as that two and two make four. One is as certain as the other. That man will ever become perfect, those of us who have studied him in his past and present, and by such lights as were (or are) obtainable, can hardly believe. The view would be a desirable one, *if it were true*. Without indulging in Condorcet's hope, we nevertheless believe that man has a grand future before him, and that his possibilities of moral improvement are almost infinite.

Helvetius and Condorcet lived near a century ago. Are the fictions upon which modern *savans* and philosophers attempt to erect sciences of man and of mankind more rational or more social than those of the eminent French thinkers? Some of us think that there is a falling off, not only in the quality of thought and style, but of moral purpose. But is it not time to have done with fictions? Gall has shown the physiological basis of a real science of mind; and Comte, the founder of Positivism, has demonstrated the utter futility of theology and metaphysics to form a basis for modern Anthropology (or Sociology). Although history proves that a knowledge of origins is unattainable, yet eminent naturalists and physiologists still speculate upon origins of species and the descent of man from ascidians, through apes; and able thinkers, who are neither naturalists nor physiologists, with almost infinite labour endeavour to build up systems of philosophy based on metaphysical fictions, of nature proceeding always from the homogeneous to the heterogeneous, and the indefinite modifiability of species.

When a social purpose dominates our life and thought, studies so purely speculative as these will be indefinitely deferred or ignored. Questions of origins, of first and final causes, will be regarded as idle and as useless as those of perpetual motion—whether angels can exist *in vacuo*—and the origin of evil.

Anthropologists who are guided by a purely relative method, and actuated by a true social impulse, will continue to investigate

phenomena bearing on man and his *environment* in historic or immediately prehistoric times, discarding, as unscientific, speculations of what he might have been before he was man. Hypotheses which are not susceptible of verification at the first stage can only serve science in a very secondary way; while they encumber the already over encumbered fields of inquiry, waste precious time and still more precious talents, and complicate questions already complex and difficult. Let us address ourselves to real issues and tasks of unquestioned utility; and, remembering how feeble are our powers, hoard our strength for contests of genuine and lasting value to our contemporaries and posterity. If only we realize the sense of solidarity and continuity, Anthropologists of the future will gladly own that we were not unworthy either of the science we cherish or the Humanity we serve.

DISCUSSION.

The thanks of the Meeting have been voted to the Author,

Dr. CARTER BLAKE said that he would not trouble the Society with many remarks on the diaphragm-science (*θρηνη-ology*) of Gall, but would call the attention of the Society to the recent discoveries of Prof. Ferrier. It had been proved that the cerebellum, which had been associated by Gall with the organ of amateness, by many physiologists with the seat of muscular motion, by Mr. G. H. Lewes with unknown functions, was in some way correlated with movements of the eyeballs. The corpora striata were associated with flexion of the limbs; and the extremely minute corpora quadrigemina seemed to perform singular functions, the *nates* and *testes* producing on irritation various results. He alluded to the contradictions which existed between Lockhart Clarke, Swan, Beall, and others, as to the minute anatomy of nerve structure, and observed that it seemed to be futile to found a physiology before the anatomy of the subject was quite clear. Many of the more important convolutions and structures at the base of the brain were incapable of being estimated on the outside of a brain divested of its membranes, and *a fortiori* on the outside of a skull. He alluded with praise to the researches of Professors Broca and Hughlings Jackson, who had identified the organ of speech with the lower half of the third left frontal convolution. Much, however, of the congeries theory of the brain had been worked out and demonstrated prior to the time of Gall, and he would only refer on this subject to the excellent papers of the late Dr. Hunt on the localization of the functions of the brain.

Mr. DUNN said he had listened with great pleasure to Dr. Kaines' interesting and suggestive paper, believing as he did, with all other physiological psychologists, that the vesicular matter of the great hemispherical ganglia of the brain was the sole and exclusive seat of all intellectual action and volitional power. He was glad to have heard such a well-deserved tribute paid to the memory of Gall by

Dr. Kaines. All honour is due to Dr. Gall, for he was the first to classify the convolutions of the brain, and in them to locate the faculties of the mind. One of the most remarkable men of the age in which he lived, he was alike distinguished for originality and independence of thought, for untiring industry, and indomitable perseverance. No man has studied the *outward varying forms* of the human cranium with a view to their *psychical significance* more extensively than the illustrious Gall. It was the business of his life. Mr. Duan's mind rested on the conviction, as a well-established fact, that different parts or portions of the vesicular matter of the great hemispherical ganglia are the seat of different and special psychical activities. His friends, Professor Beall and Dr. Lockhart Clarke, from microscopical investigations of the *ultimate structure* of the vesicular matter of the anterior, middle, and posterior lobes of the brain had proved to demonstration distinguishing differences and varying degrees of complexity, warranting the conviction of *diversity* of office; and, as the greatest complexity of structure is found to exist in the anterior lobes, the legitimate inference, as complexity of function is necessarily connected with complexity of structure, is that the gray matter of the anterior lobes is the seat of the highest and most complex of our mental activities,—in a word, of the intellectual faculties of man. He heartily agreed with Dr. Kaines on the importance and necessity of a true cerebral theory for the advancement of anthropological science.

Mr. LEWIS said the theory of phrenology, as he understood it, was that certain faculties and passions had their seats in certain portions of the outer part of the brain, and that, from the size of any such portion, as felt from outside the skull, the quantity of its corresponding faculty or passion might be judged. There were many anatomical facts that told against this theory, and others from which it might be inferred that all intellectual functions had their origin at the base of the brain, at or near its junction with the spine; one of these was the fact that the optic nerve went direct to that part, while phrenologists placed functions connected with the eye immediately above it in the forehead. There was a remarkable analogy (not, so far as he knew, hitherto noticed) between the skull and a nut. Splitting a walnut with the shell and taking the half-nut, they came first to the husk, which represented the hair and skin, then to the shell, which answered to the skull, and then to the nut, which, with its two halves, looked very like a miniature brain, but it was at the centre of the nut—just the part which answered to the base of the brain—that they found the seed or germ of life. The position of the outer portions of the brain was also liable to be affected by synostosis, or by artificial or accidental compression, all of which would throw the phrenologist off the track in his investigations. Still, phrenologists did often make very good guesses, and the question was how could their practice succeed if their theory was bad? He thought that perhaps, although the faculties and passions might really have their actual seat at the base of the brain, yet the development of the outer portions

might be influenced by them, and so afford a more or less uncertain indication of their presence or quantity.

Mr. CHURCHILL, as one of the two, or at most three, surviving officers of the London Phrenological Society ("which is not dead, but sleepeth," and may be revived should occasion require), knew that he was expected to say something; but, not being scientific, could not speak upon the brain. He had seen only one—that of Greenacre, on the evening after his execution—which his anatomical friends declared to be a beautiful specimen. To him it seemed disagreeably ugly, and he never looked at another. A man might be a good phrenologist without any acquaintance with the nervous system; as, whether the brain corresponded exactly with the skull or not, the outer case alone could be examined. A sufficient number of remarkable persons cannot be obtained for *post-mortem* study, and he entirely declined to recognize the dissection of rabbits as at all bearing upon the human character. The flattened skulls of cannibals, and distortions of other savages, were not cognizable by phrenology; perhaps the position of the intellectual organs may be changed, perhaps the quality altered by the pressure. A lecturer on the human frame would not take for his subject dislocations or distortions. Phrenology did not deal with exceptional cases. Great discredit had been brought upon phrenology by public and private charlatans, the former induced by profit, the latter by the variety of display. Either might buy a book for one shilling, and a bust for another, and after six hours' study become qualified to lecture or to talk. People have ceased to pay or listen, and so we are freed from impostors and bores.

After some remarks from CONSUL T. J. HUTCHINSON, F.R.G.S.,

The PRESIDENT said one objection to phrenology is that there are no concavities in the inner part of the skull to correspond with the prominences on the outer surface; so that the greater the development, the greater must be the thickness of the skull. Perhaps a better name for the science would be "Bounology," "the science of eminences." It had been proposed to reduce the number of the so-called organs to twelve or fifteen. It would, perhaps, be better to do away with them altogether. If a clot of blood on the brain (and he assumed it *might* occur in more than one part) had the effect of injuring the memory, the feelings, &c., what was the use of talking about organs? The only really useful knowledge we have yet acquired by our researches on the subject is that human intelligence has relation to the number and depth of the cerebral convolutions, the size of the brain, and the great development of the anterior masses. He doubted whether the study of the brain, or of any important science, would ever become popular. Before that took place proper understanding of the terminology used and a study of Greek, Latin, and other languages would be necessary. Such terms as cineritious matter, *falk cerebri*, fissure of Silvius, Pons Varolii, Isle of Reil, medulla oblongata, optic thalamus, corpora olivaria, corpora pyramidalia, &c., &c., are not adopted to the million.

Dr. KAINES, in replying to the various remarks offered by Mr. Lewis, Dr. Carter Blake, and Mr. Consul Hutchinson, began by thanking Mr. Dunn and Mr. Churchill for the expressions of their agreements with his views. Dr. Kaines stated that, from what he had heard of Professor Ferrier's experiments, he was inclined to think that they were much overvalued by Dr. Blake and others; the experiments appeared to be made upon animals under abnormal conditions, and their results could not be of such value as those of experiments made under normal conditions. However this may be, Dr. Crichton Brown, no mean authority, who witnessed the experiments, declared that they confirmed Gall's localization of the organ of language. No doubt a mistake had been made by cerebral physiologists, as has been already remarked, in separating the phenomena of cerebral physiology from those of the rest of the nervous system, with which it was in relation. No one had pointed this out better than Comte, and no one had illustrated the deficiency more luminously than Mr. Lewes. Dr. Kaines cared little for "the contradictions which existed between Doctors Lockhart Clarke, Swan, Beall, and others, as to the minute anatomy of the nerve system," because he believed that the only way to create cerebral physiology was Gall's method, supplemented, as Comte has suggested, by the anatomical study of the entire brain structure. That method had produced great results; and its imperfect use by modern anatomists accounts for the backward state of cerebral physiology. Dr. Kaines did in no wise wish to undervalue the researches of Professor Broca and Dr. Hughlings Jackson, but he could not allow them to be credited with what was substantively Gall's discovery. The assertion of Dr. Carter Blake, "that the organic theory of the brain had been worked out and demonstrated prior to the time of Gall," was a rather surprising one. How is it that there was no true physiology of the brain prior to Gall? and that, when phrenology is attacked, Gall and Spurzheim and their friends are always spoken of and no one else? DeMorgan says, in the introduction to one of his mathematical treatises, "that a discovery is often guessed at by many before it is made by one. Hundt (1501), Reisch (1508), Baptista Porta (1583), Ludovico Dolci (1562), Vesalius (1542), Chanet (1649), considered the brain as a congeries." (For this note Dr. Kaines is indebted to Dr. Carter Blake.) But Dr. Kaines has yet to learn that these men made any real discovery of the different organs of the brain; and he is certain that, with the scientific methods formerly in vogue, no discoveries of the value of Gall's *could* have been made. Cerebral physiology was impossible till Bichat set forth his great distinction between the animal and the organic life. It is a weakness of the human mind to read modern discoveries into ancient thought. This has been very acutely pointed out by Mr. Lewes in his monograph on "Aristotle." It is a still more painful weakness to withhold from the modern discoverer the credit due to his discovery, and ingeniously (not ingenuously) to seek in some old author for the first hint of the discovery.

The Honorary Foreign Secretary then read the following paper:—

NOTE ON A VEDDAH SKULL.

By C. CARTER BLAKE, Doct. Sci.; Hon. For. Sec. Lond. Anth. Society;
Lect. Comp. Anat. and Zoology, Westminster Hospital.

THE characters of Veddah skulls have been so often described by Professor Busk and other skilful observers that I need here only call attention to a specimen which has almost entirely escaped notice.

In the British Museum there is a skull from Ceylon, presented by Dr. Davy. Although not stated to be that of a Veddah, some considerations to which I will point lead me to infer that it belonged to the aboriginal race. Its measurements, taken according to Williamson and Morton's method are as follows:—

Longitudinal diameter	..	..	..	6.50 inches.
Parietal diameter	..	..	..	4.88 "
Frontal diameter	..	..	..	4.12 "
Vertical diameter	..	..	..	5.25 "
Intermastoid arch	..	..	..	14.25 "
Intermastoid line	..	..	..	4.25 "
Occipito frontal arch	..	..	..	13.25 "
Horizontal periphery	..	..	..	19.00 "

Let me now compare it with the original Veddah skull described by Professor Owen in the Osteological Catalogue of the Royal College of Surgeons (p. 863). Of this specimen we have the following information:—

"5539. The cranium of an aboriginal of the island of Ceylon of the race called Vedah or Veddah, from Bintenne. The cranial cavity is of small size, with the forehead narrow and receding; the glabella is moderately prominent through the development of the frontal sinuses. The sutures are well marked, *that of the lambdoid is particularly complex, and sinks below the level of the contiguous bones at its lower angles.* The supra-mastoid ridge is well marked; the mastoids are moderately developed; the paroccipitals are rudimentary. The zygomatic processes of the temporal are very slender, *those of the malars have the lower border convex, descending below them.* The styloform processes of the alisphenoid are low, or short, subquadrate, but unusually extended backwards and outwards, overlapping the inner angle of the vaginal processes. A trace of the maxillo-premaxillary suture remains on the palate; *the maxilla is slightly prognathic; the molar teeth are small.* This cranium has probably belonged to a female; it agrees in the chief characters with the skull from the Phillipines (No. 5531)."

In the characters I have italicised Dr. Davy's skull agrees with the College of Surgeons' specimen. The complex lambdoid suture is probably the first character which strikes the observer, being at a lower level than the neighbouring bones. The form of the malars, though not unusual in the dark races of man, is sufficiently peculiar, and no Cingalese skull that I have seen presents other than remarkably slender malar bones. In this character, the present skull

shows an affinity to the dark races, but the size of the molar teeth, which are much smaller than in the Australian, forbids such a theory.

Comparing this skull with that of a typical Australian, Dr. Davy's specimen shows a more globular form, a greater development of the nasal bone, and a less prominent oval production of the upper half of the supraoccipital. The molar teeth are, as has been said, much smaller; *m. 3* in the lower jaw has not yet cut the gum on the right side, and is concealed in the alveolus on the left. The alisphenoid suturally unites with the parietal on the right, and its apex only touches the parietal on the left side. In this latter character a step is shown towards the dark races. The supranasal notch is deep, and the supraorbitals are rather prominent. The sum of all these characters indicates that this skull (unlike those of the Dekhan hill tribes) affords little affinity to those of the existing races of India.

In the Fort Pitt Museum, Dr. George Williamson (p. 17) records five instances of Cingalese skulls, without especially denoting their tribe. It may be noted that Wormian bones were found in the lambdoid suture in two of these instances, in one of which they were of large size, cutting off the superior angle of the occipital bone; in one instance (from the district of Galli) there was a large os triquetrum in the temporo-sphenoid suture. Dr. Davy also presented the skull labelled as a "Singhalese," but which I would rather call a Veddah. The forehead was low and retreating; the lacrymal canal large; and the alveolar processes of the superior maxillary bones rather long and projecting.

From these few scattered facts, I would conclude that the affinity of the Veddahs (*a*) to the existing Dravidian Cingalese, (*b*) to the Australians, cannot be predicted. The only trace of analogy appears to be with the aboriginal population of the Phillipine Islands, whose skulls are scarce in our public museums. It is with these that a detailed comparison, according to the hint thrown out by Professor Owen, must be made, when we have sufficient material.

DISCUSSION.

The thanks of the Meeting having been voted to the Author,

The PRESIDENT said the Vedah are to Ceylon what the Hovah are to Madagascar, the Batta to Sumatra, the Alfueras to New Guinea. According to Dr. Barnard Davis, the skull form of the Vedah is peculiar to them and to some tribes of the neighbouring peninsula. The crania are generally small, narrow, tall, dolichocephalic, tolerably prognathous, and not depressed in the forehead. It is the general opinion that the Vedah were originally from the south of India. The shortest distance between the north of Ceylon and the peninsula (across Palk's Straits) is not more than forty

miles, whilst to the north-west the island is nearly joined to India by the Isle of Manaar (a ridge of sand called Adam's Bridge), and the Isle of Ramisseram. The whole of the country on the north side of the island is occupied by a colony of Malabars, who speak a dialect of the Tamil. The other inhabitants of the island embrace Singhalese, Vedah, Arabs, and some Europeans (Dutch, Portuguese and English). Vedan (in the plural, Vedar, Veddah, Beddar, or Weden) is the appellation of a wild tribe inhabiting the hills and forests in the south of India, almost in a state of nature, who gain a livelihood by killing birds and beasts with bow and arrow. The name signifies in Tamil and Mayalalam "a hunter or fowler." Again Béda, Bédanü (in the plural, Bedarü, Beder, Veder) is the name of a caste that lives by the chase, and is considered in Mysore as originally from Telingana; and *Béda* in Karnata has the same meaning as Vedah, &c. In Singhalese *wedda* signifies "a hunter." The Vedah of Ceylon were originally supposed to be without a language, but this notion seems to have arisen from the fact that they are a very taciturn people. About five per cent. of the Vedah vocabulary agrees with the Singhalese (a language based upon Sanskrit and Páli, but especially the former). The Vedah dialect does not appear to be related to the Tamil, which latter, although it contains Sanskrit words, is not *based* on that language. In a few words, the Vedah agrees with the dialects spoken by the Kocch, Bodo and Dhimál tribes. The word for dog squares with a Kocch word, but the Vedah has also a word from the Singhalese. But even the resemblance between the Vedah and the Kocch dialects may arise from the fact that all have borrowed from the Sanskrit. None of the baptismal names (male or female) are traceable to Singhalese or Tamil.

Reviews, &c.

ANTHROPOLOGY OF LATIUM. Memoir of Giustiniano Nicolucci.* 4to., pp. 64, with 4 plates. Naples, 1873.

IN continuance of his noble efforts to elucidate the ethnology of the various peoples of the Italian peninsula, Dr. Giustiniano Nicolucci has issued another of his learned memoirs. This embraces the races of Latium, from which the Roman people sprang, and all their long illustrious line. There is the usual elaborate inquiry into the origin and alliances of these people, deduced from the obscurity and the learning of the more ancient classical writers; every phase of the vast subject being estimated by the light of craniology, till it is brought down to the skulls of the modern inhabitants. The whole is crowned by the mature judgment of the excellent author.

He commences his memoir by defining the subject and descanting upon the speculations which have been offered with respect to the origin of the people of Latium.

The term Latium in its earliest meaning extended to only a very small district of country between the Tiber and the Alban Mount, between Tivoli and the sea. Much later, the name was amplified to Circeii, and afterwards to the river Liri, and comprised the lands of the Equi, the Ernici, the Rutili, the Volsci, and the Aurunci or Ausones. This vast country was then designated *Latium novum*, to distinguish it from *Latium vetus*, which was the country of the Prisco-Latini, with all the colonies founded by them before the rise of Rome. Ancient traditions record that the oldest inhabitants of Latium had been the Siculi, before whom, they say, it is difficult to affirm whether it was inhabited or desert. But who were the Siculi has always been a theme of great controversy among the learned; nor have the researches of modern investigators of Italian origins been able to diffuse any light upon this obscure point of Italian history. The Siculi occupied a great part of the Latin country, but more particularly the territory around the Anio and the Tiber, and the places where arose afterwards Falerii and Fescennium, at the foot of the Appenines, where also obscure traces of their habitations were to be perceived in the following centuries. But, notwithstanding such explicit assertions of authors of antiquity so worthy of belief, it seems not improbable that other people inhabited Latium before the Siculi, especially if we may give credit to Virgil, who was so diligent an investigator of the memorials of his country. When, therefore, the Siculi invaded Latium, they did not seize upon desert country, but, superposing the natives, reduced them to subjection. For all that, the Siculi, after long wrestling with the indigeni, in which the neighbouring Aborigini intervened, were also expelled in their turn from Latium, and compelled to emigrate

* Antropologia del Lazio. Memoria del Giustiniano Nicolucci. Napoli, 1873. 4to., pp. 64. Con tavole iv.

by the Appenines to the south of Italy, whence they passed over to Trinacria, which from them took the name of Sicily. The author alludes to the various opinions of Roman archæologists concerning the Aborigini. Some considered them to be the same as those called *Autochthones* by the Greeks, *i.e.*, those born of the soil itself; some, a multitude of wandering nations; and others designate them Ligurians, or Umbrians, and also Greeks. Such different conjectures prove the remote antiquity of these people, and their close affinity with the oldest inhabitants of the centre of the peninsula. Many reasons induce the belief that they might have been of the same race as those who inhabited Latium before the invasion of the Siculi. He adds, that it is a probable conjecture that the name *Latium* might be that of the ancient possessors of the country, and that of *Casci* proper to the Aborigines, whence the name they adopted might be an argument to prove the fusion of two peoples, who joined their proper appellations in Casco or Prisco-Latini. The Aborigines endeavoured to liberate Latium from the Appenines, and from the country of Reate, their native land; and the war was long, difficult, and bloody. They were not alone in this enterprize, but had the most valid help from the Pelasgi, who, setting out from Greece, came in search of new lands and a less adverse fortune under the skies of Ausonia. Received amicably by the Aborigines, they united with them in the war against the Siculi, and, when the conquest was completed, had, in recompense, the privilege of settling themselves in many parts of the conquered country from the Tiber to the Liri. Wherever they obtained a permanent abode, they left behind them indestructible monuments of their power; and in all Latium there remain still, as a marvel, the remnants of their constructions. They are the walls of a city or fortress, the circuits of temples and solitary altars, which are called at this day—like the walls of Argos, Tiryns, and Mycenæ—Pelasgic works, and are seen scattered in the lands of the Equi, the Ernici and Volsci. Grand remains of this kind are still preserved at Segni, Norba, and Cori; but the most gigantic are those of Arpino, of Ferentino, of Alatri. A portion of the Pelasgi removed, but did not remain long in their new abode, where they met with many troubles, one of which arose from the increase of the indigenous population; when they abandoned Italy for ever. Although, after their departure, Latium had acquired again its complete independence, nevertheless, it is still true that there remained there various nations, which composed that first Latin society which had, in after times, so much dominion over the remaining populations of Italy and over the world. There were the Siculi, who must have remained, although in small numbers, after their expulsion; there were the Latini, the most ancient inhabitants of the country, composing the great mass of the population; there were the Casci or Aborigines, who, conquered by the Siculi, made their fixed seat there; finally, there were the Pelasgi remaining after their great dispersion, who gave to Latium religious rites and institutions and legends and a great part of their most ancient customs. The fundamental principle in

the fellowship of these various nations was *religion*, and their social connection was kept sound by meetings and feasts, which they celebrated in the sacred wood, in the temple of Diana, in Aricia, in the Ferentinæ Lucus, in a temple near Lavinium, and more solemn still in the fane of Jupiter Latiaris, on the Alban Mount.

This first Latin federation, by extending conquests, became powerful, receiving new members from the bordering nations; who, although of other name, were always of the same race, and were not divided, save by the sole diversity of the political laws under which they were governed. These were the Rutili, the Equi, or Equicoli, and the Ernici and the Volscians. The author alludes to the Trojan colony under Æneas, which was raised by the Romans to a dogma of faith, but, whether received or not, he observes it has no important influence on the ethnic condition of the Latian population. Having mentioned the Etruscans, he remarks: "The Etruscans were established in Italy long before the foundation of Rome."

The second chapter comes more especially under our cognizance. It is entitled "Prehistoric Latium." Although the first traditions record man upon the Latian soil as in a state of advanced culture, having villages and cities, having civil and religious institutions, and acquainted with the use of metals, yet Italy and Latium had not then their first inhabitants; but much more ancient is the appearance of man in the peninsula, and in Latium in particular, where the prehistoric ages, the lithic and metalline, are also largely represented.

In the diluvial strata of the Tiber and the Anio frequent remains are met with of human industry, which witness the presence of man in the diluvial period; and in the same strata in which these appear have been found remains of the great pachydermata and other extinct animals, or those not now living in our land. Thus we draw the conclusion that contemporaneously with these animals our species might have lived in the centre of Italy, and that man's first abode might have been the heights of those mountains from which the great quaternary currents which inundate the Latian valleys descend. These works of man's hand are found in the strata of the Tiber at the depth of from eight to ten metres from the surface of the soil, and twenty or more metres above the actual level of the river, and have been met with and described by many investigators at different places; among the rest, by the author himself. Not to these alone are restrained the proofs of the existence of man in the Latian territory during the prehistorical age. The Alban Mountain, the centre of the great volcanic force of Latium, shows the remains of human industry among the matters erupted in the first period of activity of this great volcano. These burned matters appear whilst the great quaternary currents still flowed, which stratified at the height of their level with the detritus of the mountain also matters ejected from that mouth vomiting fire. As calm succeeded to that febrile activity of nature, man came to place his abode upon the external declivity of the great

crater, and the arms in stone of the archeolithic age collected at Costa Rotonda, not far from Frattocchie, towards Frascati, between the stratifications of the first Latian volcanic system, demonstrate the former habitation of that mountain from the most ancient epoch of the stone period.

As the topographical conditions of Latium rendered it always prepared for the abode of man, these favoured the extension of his domination there, and in the neolithic period we find him amply scattered over all the Latian territory. There is not an angle of Latium which has not furnished productions of that age, and many collections, including that of the author, are rich in lithic arms and utensils found in the different Latian countries.*

The bronze era also left its traces in Latium, revealed by the presence of arms and utensils here found in its different countries; and the use of this metal was protracted in Rome till the regal epoch, since arms under Servius Tullius, if not made of bronze, were, according to the traditions of Livy, *omnia ex ære*. Of the iron epoch, also, there are still more abundant vestiges, which are met with in the Latian soil, and which show in that era in Latium a very numerous population, sufficiently advanced in civil life. A large necropolis of that age was discovered, in 1817, under the volcanic ashes of Mount Albano, which extended westwards and southwards from the lake of that name. It is in an incoherent stratum of yellow sand, which is a volcanic ash, varying from a metre to a metre and a half (about from three to five feet) in thickness, and covered with a hard crust of peperino, a sort of building stone, about thirty centimetres, or a foot thick. The investigators found scattered in this necropolis a profusion of funeral monuments, which consisted of large jars, like oil jugs, in terra cotta, each of which contained the rude model of a hut in the same material, which enclosed burnt human bones, objects in amber, in bronze, and in iron, with other vases of every dimension disposed in the hut. Not far from these tombs were afterwards laid bare the remains of the contemporary habitations belonging to this most ancient necropolis, which were also buried in volcanic sand and peperino upon the shore round the lake, and out of the lacustrine clays of the Valle Marciana, not less than in the environs and the proximity to the fluviatile basin Caput Aquæ Ferentinæ, where the meeting of the Latian League assembled. The vast area occupied by the habitations yields an argument to judge of the multitude of the people who inhabited this place; the quality of the pottery which was collected, the abundance of objects in bronze which were found, and the rarity of those made use of in iron, which were more slender and lighter, afford a foundation to the belief that the age of the necropolis and of these dwellings ought to correspond to the commencement of the iron epoch, when this metal, only lately introduced into the use of society, was still a precious material, and served for objects of

* See the descriptions contained in the memoir entitled, "L'âge de la pierre dans les Provinces Napolitaines," par Dr. G. Nicolucci.

ornament merely, and others most rare. To determine precisely the chronological relations between the Roman epoch and the Alban prehistoric monuments is an undertaking sufficiently difficult, but Ponzi is not disinclined to admit that the peperinos were already formed at the time of regal Rome, and that at the epoch of the kings the Alban necropolis and habitations had been already interred by their last deposits, so that the monuments would be, in the opinion of this eminent geologist, anterior to the foundation of the city, and coeval with the annals of the splendid power of Alba. De Rossi pushes his conjectures still farther back, and finds in narrated facts a probable evidence in the relation of Diogenes of Halicarnassus, "who relates of Allade, king of Alba, that, being hostile to religion and ungrateful to the gods, was by them punished by a terrible hurricane and a rain of thunderbolts, whence followed a frightful inundation, which destroyed his abode on the shore of the lake." To this the author adds: "Diogenes applied the memory of this occurrence to the Alban Lake; but will it not be requisite to transfer it to the lake of Caput Aquæ? and, if this were true, we should decidedly have in our hands the monuments of Alba. Such consequence is too grave for me to affirm or repel immaturity; the argument demands mature discussion and serious reflections." This cemetery of untold antiquity has been partially described in the "Archæologia."*

Dr. Nicolucci proceeds to state that not only are there monuments of the three antehistoric epochs scattered about Latium, but the mortal remains of the primitive nations who inhabited it in that period. He first describes the most ancient of these relics, found in 1871 under a stratum of lacustrine travertine, in Isola del Liri, in the neighbourhood of that river. That portion of the valley of the river in which the skull was met with was in ancient times a large lake, at the bottom of which were deposited calcareous matters that formed an immense bed of travertine, of the thickness of many metres. The head was met with at the depth of 1·80 metre (six feet) below the plain of the campagna, and at the height of sixteen metres from the actual level of the river. It lay in the middle of a sand-pit of a dark yellow-coloured sand, over which stood that stratum of travertine already mentioned of the thickness of 1·80 metre. In the same sandy bed, and in the same conditions as to placement, in the short circuit of an excavation which was practised to plant an asparagus bed, there were collected an incisor and two molar teeth of the *Bos primigenius*, with fragments of the humerus of that animal, some molar teeth and divers pieces of the long bones of the stag. He adduces discoveries of such remains at different places, and particularly laments the destruction of an entire skeleton, of ordinary stature, found in 1872 in a district called Cavone, near Roccasecca, in the environs of Sora, apparently belonging to the neolithic epoch. It was found in a

* "Archæologia," vol. xlii, p. 99. Hut-urns and other Objects discovered in an Ancient Cemetery, in the Commune of Merino, by Dr. L. Pigorini and Sir John Lubbock.

sepulchral crypt in a perfect state of preservation, covered with big stones forming a species of vault. Behind the head was a rough clay vase, and two others lay beside the arms, near the base of the thorax. Round about the skeleton were scattered twenty-six stone objects, viz., twenty-two flint arrows, of the most perfect execution, two daggers, and two points of lances broken.

Skulls belonging to the neolithic age were found in 1866 between Vicovaro and Cantalupo, near Tivoli, and were described and illustrated by Professors Ponzi and De Rossi. Dr. Nicolucci himself collected, with his own hands, a skull of the iron period, in the territory of Castelluccio di Sora, anciently a Volscian land, adjoining that of the Verulanian Ernici. Here the ancient inhabitants had selected a moderate hill for a common sepulchre, where they were buried at a depth of about a metre from the surface. The oval graves were cut in the soil, in which the bodies were laid without any accompaniment. In another part of the plain, on the hill, under an old oak, and in a species of natural grotto, hollowed out of the travertine, and the whole covered with soil, was found a sepulchre different from the common graves, and perhaps belonging to some chief of the people. It had some resemblance to those discovered under the peperino of the Alban Mount. It consisted of a large vase in terra cotta, in the interior of which was contained another, in which were enclosed the ashes of the defunct. This latter was like some of those found at the Alban Mount, near the hut-urns.

The author remarks that these few materials are not sufficient to enable us to establish an opinion upon the true cranial form of the prehistoric inhabitants of Latium. "The skull of Isola del Liri teaches us that in Latium there lived in the quaternary period a population furnished with a dolichocephalic orthognathic skull, which by the ogival form of its calvarium, by the excessive development of the occiput, by the backward position of its occipital foramen, by its limited internal capacity, and by other minor peculiarities, shows a type inferior to that which was proper to the Latins of the subsequent periods."

The tombs of Cantalupo reveal to us in Latium, besides the dolichocephalic, the brachycephalic type also, which was met with in two of the five heads collected from these ancient sepulchres; so that it is not to be doubted that two types of cranium, and, therefore, two distinct peoples, were united in that age to live together in the Latian country; two types which, more or less mixed, have been preserved to the present day. So, also, it is worthy of remark, that the two cranial forms in Latium at the present day already showed themselves in the neolithic period. We are inclined to think this latter may prove the more correct statement, and that the conclusion before propounded of "two distinct peoples" demands further investigation before it ought to be definitively admitted.

Unless we gave a translation at length of the graceful remarks of Dr. Nicolucci, which close this second chapter, it would

be impossible to do justice to his acute discrimination and judicious reasoning. He refers frequently to Virgil, who was a diligent student of the antiquities of his country, yet who regarded them in a poetical light; and the author shows himself a similarly ardent patriot, who examines the same subject with the eyes of a modern man of science, and reflects a like, if not an equal, splendour upon them.

Whilst admitting that the materials are at present too scanty to establish any definite conclusions, he allows that the mixture of the Aborigini and Pelasgi with the people of Latium may have given a greater development to the lateral portions of the calvarium. "Latin, without any doubt, is the cranium of Castelluccio di Sora, which we have referred to the iron epoch. The form, size, longitudinal and transverse diameters, and the relations between these and the height—all these measures so agree with those of Latin skulls known to us, that consequently we have no hesitation in considering them true and genuine Latin crania." This is supported by a table of measurements of the two, which are identical, except in circumference.

It is important to mention in a summary manner a few of our author's remarks: "At the end of the quaternary epoch the man of Latium was a dolichocephalic man, but the form of his skull was not that of the dolichocephali of the following epochs. The head of that man does not still meet that harmonic development which we find in the cranium of those who inhabited Latium in times less remote. To the dolichocephalic type is associated in Latium in the neolithic age the brachycephalic cranium, but the two types, although more elevated than those of the archeolithic period, do not fully represent the Latin skull. It is in the iron period that we meet with the true Roman cranium, and this skull is never again changed, through so many ages from that remote epoch to this day. To what cause should we attribute the changes which the Latin cranium underwent in the prehistoric epoch? We dare not venture any judgment, but it does not appear improbable that at least part of these modifications may be owing to the natural and successive perfecting of the primitive forms, part to the immigration of other peoples, who, mixing with the natives of the country, confuse the ethnic elements, from which finally have resulted the cranial forms which at the iron epoch we see fixed in the Latin territory. We have spoken of the fusion of the immigrant ethnic elements with those pre-existent in Latium; still we do not believe that the new comers would annihilate the indigenous races, and destroy every trace of them. If the Siculi were Ligurians, why might it not be admitted that the brachycephalous skulls of Cantalupo might belong to that race? And if the Latini were dolichocephali (as they are at the present day, in the greater part), why not believe that the dolichocephali of these same sepulchres might not be the first progenitors (protostipiti) of our Casco—or Prisco-Latini? To sustain our conjectures, Virgil comes in, who was so diligent an investigator of the anti-

quities of our peninsula. In the eighth book of the *Æneid*, Evander thus narrates the ancient legends of the Latin lands :

“ These woods were first the seat of sylvan pow’rs,
Of nymphs and fawns, and savage men who took
Their birth from trunks of trees and stubborn oak.
Nor laws they knew, nor manners, nor the care
Of lab’ring oxen, nor the shining share,
Nor arts of gain, nor what they gain’d to spare.”

The remaining portion of Dr. Nicolucci’s treatise consists of two chapters : the first entitled, *Latin Crania*, to which is appended along series of *Cranimetrical Tables* ; the second, *The Latins of the Present Day* ; and to the whole work are added four plates of skulls, containing no less than thirty-two figures. These well represent, of one-third size, the Latin skulls of prehistoric times, of ancient Latium, and of the modern inhabitants of the Latin lands. They are of very great value.

We should be glad to continue the same analytical notice through the latter portion of this valuable work did space permit. We cannot, however, pass it over cursorily. Preceding writers upon Roman skulls receive due notice, after which the author says it will not be easy for him to add much to what is already known ; yet he hopes his researches may help to clear up some points, at all times obscure in the Anthropology of Latium, namely, whether one or more cranial types existed among the ancient Latins ; in what proportions they were found amongst them ; and whether these same cranial forms may have been perpetuated in Latium until our times ; and in what proportions they are always found. He says he considers it necessary to make a declaration as to what meaning he attaches to the words *Latin cranium*, by which “ I intend the skull of the populations living in the territory comprised in Old and New Latium. Foreign Anthropologists ordinarily call undistinguishingly ‘ Roman ’ the skull of any whatsoever inhabitant of Italy during the Roman domination, whether proceeding from Rome, from the Campania, from Sanni, from Abruzzi, or from Calabria. For us,” he adds, “ who have had the opportunity to observe ancient heads of the different Italian provinces, and who have not neglected to collect and to study all the present populations of each country of the peninsula, for us the Latin skull represents a special type in Italian craniology, which is not confounded with any other of Italy, and which, besides, presents characters so special and distinct that allow it to be elevated to a proper and special type belonging to the centre of Italy.” Prunerbey uses similar language when he says : “ La forme du crâne Romain est une des mieux arrêtée. C’est ici le cas de dire : Qui en a vu un, les a vu tous.”

In speaking of the materials upon which his observations are founded, the author says there are 120 crania, of which sixty are ancient, and sixty modern ; and adds a statement of where they are preserved, so as to allow of verification. By far the larger number of these skulls are, or were, in his own collection, for he has fur-

nished rich collections of Italian crania to the Hunterian Museum, in London, and to Harvard University, United States. He appends the periods to which the different cemeteries from which they were obtained may be referred. A large number of his ancient skulls were obtained from a cemetery near Aquino, from which he procured thirty well-preserved heads. The objects found in this cemetery show them to be of the date of about the second century of our era.

The Latin cranium, or, as it is commonly called, the Roman cranium, is distinct in particular characters, which differentiate it from all other known skulls. In the majority of examples it is dolichocephalic, but brachycephalic crania are not rare. Among the ancient skulls they are seen, relatively to the dolichocephali, in the proportion of 30·15 per cent., and among the modern ones of 30·30 per cent. By decomposing the series of skulls into males and females, and comparing separately in each group the brachycephali and the dolichocephali, we have observed that also at the present day the Latin male crania preserve the like proportions as in the ancient between the first and second, finding the one in respect to the other in the relation of 29·54 per cent. Neither diverse are the relations between the orders of crania in feminine heads, seeing that in the ancient the proportions between the brachycephali and the dolichocephali are found to be 37·57 per cent., and in the modern, 37·21 per cent. But, whether they be brachycephalic or dolichocephalic, the Latin crania are always distinct by their great size; and this character is put very clearly in relief by Retzius, by Maggiorani, by Davis. "And in truth, judging of the size of the Latin heads from their cubic internal capacity, we find that this, in the male skulls, reaches to 1525 c.c., in the females to 1338 c.c., the mean of both being 1432 c.c. In the modern Latin male and female skulls the same cubic capacity reaches 1513 c.c., and 1312 c.c., the mean of the united numbers being 1413 c.c. The extreme limits of the measure of capacity of ancient male skulls studied by us are 1852—1385 c.c., and those of modern, 1720—1310 c.c. In female ancient crania these limits are marked from 1430—1283 c.c., and in moderns from 1389—1206 c.c."

From this point the author proceeds to an elaborate and minute investigation of all the features of the Latin skull, assisted by careful measurements, which he presents in useful tables. And here the work itself must be consulted by those who, in future, would discriminate the Latin skull, or learn its special peculiarities. His general conclusions are of great value, and are expressed in these words: "I believe that the Latin crania, ancient and modern, express not merely the same form, but the same dimensions, and thus prove evidently that the Latins of to-day are the pure descendants of those of antiquity, and that thus the type of the ancient Latin man has been preserved even until this day unchanged in the modern inhabitants of Latium." Here our analysis may be safely concluded for the present with an expression of great satisfaction at the manner and completeness of Dr. Nicolucci's investiga-

tions. His work will ever be regarded as a classic; at least for Roman, or more properly Latin, skulls.

The last chapter of this fine work, entitled, "The Latins of the Present Day," is of so much importance, anthropologically; is so philosophical, so instinct with the vitality of truth; is written with so much ardour, in so fine a spirit, by a true son of the soil of Latium, that it cannot be passed over unnoticed. On the contrary, it richly deserves a special article, in which its most important passages may be translated, and its facts and doctrines may be weighed and considered at length. It appears to us to be one of the most valuable contributions to the science of Anthropology since the days of Blumenbach and William Edwards, when this science took its rise. On these accounts, although constrained to leave off here, we will return, in a short article, to Dr. Nicolucci's work in the next number of the "Anthropologia." J. B. D.

MIVART ON MAN AND APES.*

THIS work has an important bearing on the question of the affinity which man bears, or may bear, to the existing forms of *Quadrumanæ* which are still found in various tropical localities. For the last decade in the history of the controversy we have been told by many strenuous advocates of the theory of the descent of man from ape, either according to the derivative or the Darwinite method, that the great undiscovered link between man and the lower forms was some form to be discovered by some future geologist, somewhere or other about Borneo or the Gaboon. Haeckel fixed the seat of his primæval "Paradies" within the Lemurine area in the Erythræan Sea. It is left for Mr. Mivart to point out that the series of monkeys cannot be arranged in any one serial order, but are connected to each other by a complex network of affinities which unite all together by a number of interblending relations. One passage from the work will perhaps give the author's ideas best: "In the words of the illustrious Dutch naturalists, Messrs. Schroeder, Van der Kolk, and Vrolik, the lines of affinity existing between different primates construct rather a network than a ladder. It is, indeed, a tangled web, the meshes of which no naturalist has as yet unravelled by the aid of natural selection. Nay more, these complex affinities form such a net for the use of the teleological retiarium as it will be difficult for his Lucretian antagonist to evade, even with the countless turns and doublings of Darwinian evolutions. . . . If man and the orang are diverging descendants of a creature with certain cerebral characters, then that remote ancestor must also have had the wrist of the chimpanzee, the voice of a long-armed ape, the blade-bone

* Man and Apes; an Exposition of Structural Resemblances and Differences bearing upon Questions of Affinity and Origin. By St. George Mivart, F.R.S., V.P.Z.S., Lecturer on Zoology and Comparative Anatomy at St. Mary's Hospital, London, 1873.

of the gorilla, the chin of the siamang, the skull dome of an American ape, the ischium of a slender loris, the whiskers and beard of a saki, the liver and stomach of the gibbons, and the number of other characters before detailed, in which the various several forms of higher or lower primates respectively approximate to man. But to assert this is as much as to say that low down in the scale of primates was an ancestral form so like man that it might well be called *homunculus*; and we have the virtual pre-existence of man's body supposed, in order to account for the actual first appearance of that body as we know it—a supposition manifestly absurd if put forward as an explanation."

This passage gives the key to the author's argument. It may be said, in reply, that some of the resemblances are purely analogical, and do not indicate affinity, and that others must be taken at a small value. *Anoplotherium* had "*dents en série continue*," like man; yet affinity cannot be predicted between ourselves and the extinct omnivorous ungulate. The beard of the saki, and the long nose of the kahau, are not marks of human affinity any more than the upright position of the penguin, or the forward direction of the eye in the owl, indicate real resemblance to man. We would rather seek for such affinities in more minute points of structure, and especially in those of which it is impossible to conceive the alteration on any selective or teleological law. The possession of a lobule to the ear; the development of a vaginal ridge beneath the skull; the almost transverse arrangement of the four incisors, which are of smaller relative size in the gorilla than in the chimpanzee; the smaller diastema between the incisors and the canines in the gorilla; are all differences to which Professor Owen has pointed in order to justify his assignment of the gorilla as a species higher in the serial order than the chimpanzee. But to our mind, on the assumption that the brain is the most important organ in any animal, the gorilla shows a closer resemblance to man than any other form. We are aware that on this point our opinion is at variance with that of our esteemed friend, M. Gratiolet, who, on the very day of his lamented death, wrote to us to try to convert us to his opinions. Let us endeavour to see how the question really stands. We can only judge of it from the dissections of Professors Owen and Gratiolet. Though the brain in the orang is undoubtedly higher than in the gorilla, it is far shorter. The rhinencephalic compartment is a little narrow, as deep in the orang as in the gorilla. The chimpanzee has a lower cranial capacity than the gorilla; and the orang has a smaller capacity of cranium than either of the two species of chimpanzee. From these and other facts it was deduced by Professor Owen that "every legitimate deduction from a comparison of cranial characters makes the tail-less quadrumana recede from the human type in the following order: Gorilla, chimpanzee, orang, gibbons; and the last-named in a greater and more decided degree." To these cerebral facts may be added the very important point that the floor of the nasal cavity is shorter and thicker, and a much larger proportion of it is contributed by the premaxillary

in the orang than in the gorilla. In this apparently trifling point a much greater affinity to man is shown by the Gaboon than by the Bornean beast. Such, therefore, was the state of our knowledge prior to the publication of Mr. Mivart's little volume.

It is urged, on the other hand, by Mr. Mivart, that the gorilla differs more from man than do any other of the latisternal apes, in that the bony muscular ridges of the skull are enormously developed. To this we must remark that the character is a purely sexual one, and that comparison of the female gorilla with the female chimpanzee does not exhibit it. The cerebrum is, it is true, of relatively small vertical extent, but the great development of the posterior lobe, which is co-extensive with the cerebellum in length, but not in breadth, in the gorilla, should be taken into account. The cerebral convolutions are found, according to Gratiolet, on the type of brain found existing in baboons. The evidence from partially decomposed brains should (we submit) not be considered as decisive. The argument, however, must rest on what are considered to be the real homology of the "bridging convolutions," which, absent in the chimpanzees and baboons, are to be distinguished in the orang. The presence or absence of these structures is perfectly undemonstrated in the gorilla. Even if their absence, as in *Cynocephali*, could be demonstrated, the fact would no more conclusively prove the affinity of the gorilla to the baboons than the presence of the mastoid processes in both genera. It must, however, be remembered that Mr. Mivart, whose book bears the stamp of a frank, simple honesty, which is scarce amongst anatomists, especially in England, makes a candid confession that forms which are zoologically distant, sometimes resemble each other in brain-character, while closely allied forms strangely differ. The "bridging convolutions" reappear in *Atetes*, while two closely allied species of *Cebus*, which have been even considered to be of one species, differ entirely from one another with regard to the form of the bridging convolutions. Such an argument, therefore, cuts both ways. It is then striven to prove that the liver in the gorilla is more baboon-like in its subdivided condition. Of this fact there can be but little doubt, although since the time of Soemmering we have not had many classifications based upon the mere study of the alimentary canal alone. Lastly we are told that the large papillæ of the tongue are scattered, and not collected into a V-shaped aggregation. The non-development of a chin and the number of ribs are also insisted on. But we are not much disposed to allow much weight to such arguments as these, either on the affirmative or the negative side.

Thus far we have considered the purely anatomical argument of Mr. Mivart, and the moral and philosophic part of his proofs will not take much space to discuss. He seems thoroughly to have recognised the incapacity which the majority of self-styled thinkers in England have to understand a simple proposition. Albemarle Street, St. Martin's Place, and the successive meetings of the British Association have showed us how speculators have played

fast and loose with the ordinary laws of thought, such as in the continental primary schools at least are taught to infants of eight years of age.

An oblique form of the ridge on the back grinding teeth is present in the gorilla and absent in *Hylobates*. Whether the ridge, precisely homologous with it, is or is not present in *Myctes* or other American apes, does not affect the question. There is a certain condition of the wrist bones in man, the chimpanzee, and the Indris monkey. Did this condition arise independently, or is it a mark of genetic affinity? The latter consideration must be rejected, and thus the speculators on the origin of such minute variations by the accidental preservation in the struggle for life of minute and fortuitous variations are baffled. But is the theory of derivation, or, as Mr. Mivart will call it, "evolution," affected by such a verdict? Here a theory is suggested by which, under the operation of conditions which impose an innate law upon nature, new and definite species under definite conditions emerge from a latent and potential being into actual and manifest existence. There is no conceivable reason why these latent specific forms should not have the most complex and involved relationships one to another; similar structures independently appearing in widely different instances. An analogy is drawn from the inorganic world, and the experiments of Dr. Bastian are strongly insisted on. In support of the theory of possible rapid changes affecting the genetic succession of the various outcoming forms of life, Mr. Mivart refers at length to the axolotl, which large Mexican eel is seen to transform itself into an animal which has been hitherto classified by zoologists as not only of a different species, but of a different genus. Here the whole structure, and even the arrangement of certain teeth in various bones, becomes metamorphosed, without any observation giving us the slightest hint what conditions may determine, in such an exceptional case, this marvellous transformation. The most inconceivable part, however, is that the axolotl, when ordinary and immature, breed freely; but the rarely developed adults are absolutely sterile.

Mr. Mivart then extends the argument of his "Genesis of Species," that very frequently similarity of structure may arise without there being any genetic affinity between the resembling forms, and that the assumed change of development arises from internal as well as external causes. Our space will preclude us from entering into an argument which verges on metaphysical considerations, and which is probably too accurate and too subtle to be comprehended by a vast section of anthropological students. The author puts an imaginary argument in the mouths of an Aristotelian and a Lucretian philosopher, and under the ingenious metaphor of intelligences contemplating the dead body of a man. One would conceive that it was merely the body of some latisternal ape; the other would think that differences between it and other animals were those, not of degree, but of kind. According as the bent of the school of philosophy of the inquirer, so would be the result arrived at.

We have perused Mr. Mivart's pleasant and readable little work with much satisfaction. We have contrasted it with larger, more controversial, and less accurate works on the same subject, and, with the exceptions to which we have above alluded, we may recommend it as one of the most instructive descriptions of the distinctions between man and apes yet published.

C. C. B.

RECHERCHES SUR LE TABLEAU ETHNOGRAPHIQUE DE LA BIBLE ET SUR LES MIGRATIONS DES PEUPLES. Par Ch. E. De Ujfalvy de Mezö-Kövesd. Doc. en Phil. Paris: Maisonneuve et Cie.

THIS little work is founded, in great measure, on the labours of M. de Hauslab, who has attempted to trace the migrations of peoples by means of the geographical characters of continents. He has been aided, moreover, by the application of a curious philological law according to which, whatever change may take place in the vowel sounds, the consonantal skeleton of the names of peoples derived from a common source remains the same. Among other examples of the application of this supposed law, we have the names KoPTes, eGyPTiens, and sKiPeTares. Another series of names are those which have preserved the consonants GaL and CeLT, as eusCaLDunac, CeLTes, and GaLLia. Euscaldunac is the name which the Basques give themselves, and our author asserts that they are Iberians who have adopted a large number of Celtic words. The Iberians, again, are Chamites, and the root BR occurs wherever they are found. Thus M. de Hauslab supposes that the HeBeRs were Chamites, who adopted a Semitic language. Curiously enough the root BR is contained in aBRaham as it is in HiBeRnia, CamBRia, BRitannia, eBRo, BeRBeR, umBRia and in the Georgian iBeRia. Does it not also appear in aRaB? The theory of migrations which our author works out is very ingenious, and is founded on the notion that the earlier races will, after a series of migrations to the same region, be found at its extreme limits and on its highest elevations. This theory is illustrated by several maps, showing how the earlier inhabitants become displaced by subsequent waves of migration. This little work is only a general sketch of a much larger one, containing numerous maps, which has been since published.

L'Océan DES ANCIENS ET LES PEUPLES PRÉHISTORIQUES. Par A. C. Moreau de Jonnés. Paris: Didier et Cie.

IN the introduction to this work the author states that the ocean plays a considerable part in the theogonies of antiquity, either as a god or as the place of origin of peoples and princes, and he asks where can have been this ocean, seeing that the Phœnicians and Greeks only at a comparatively late period navigated the Atlantic, and that more

eastern peoples could not have known of its existence. The first part of the work is devoted towards answering this enquiry; and, from the statements of Strabo, Pliny, Mela, and other ancient writers, and from the geographical features of Eastern Europe, our author comes to the conclusion that the Russian Steppe was, some centuries before Homer, covered by an inner sea connected with the glacial sea, the Baltic, and the Caspian. At a date more distant, 5,000 years ago, the whole of Russia was submerged by an ocean which in the north was bounded by the high counterforts of the Oural, and which in the east was continued into the solitudes of Tartary as far as Lake Baikal. In the west it was lost in the marshes of Poland and the forests of Prussia, beat with its waves the Carpathians, and circulated in the winding straits of the Alps of Carinthia. To this vast inland sea our author traces what is called the Deluge. The level of the ocean of the Steppe was higher than that of the Sea of Azof, and the former, under local atmospheric pressure, overflowed its bank and its waters, spreading themselves from Thrace to the Caucasus, found their way to the Black Sea. This in its turn burst forth, overwhelming cities, inundating countries, exterminating populations. It is this catastrophe which occupies so prominent a place in the earliest traditions of peoples under the name of the Deluge. The chief part of the work is taken up with an examination of the ancient traditions relating to prehistoric peoples, and its perusal will amply repay the anthropological reader.

DISCOVERY OF THE TOMB OF OLLAMH FODHLA, Ireland's famous monarch and law-maker upwards of three thousand years ago, &c. Williams and Norgate. By Dr. E. A. Conwell.

UNDER this title Dr. E. A. Conwell, whose researches in Irish archæology are widely and favourably known, makes out a very fair case for the identification of certain cairns on the Loughcrew Hills, Meath, with the burial-ground of Talten, where "the Great Ultonians used to bury with pomp;" the further identification of one of these cairns as the tomb of Ollamh Fodhla rests of course entirely on supposition, and the same may be said for the date at which the "famous monarch and law-maker" lived.

Assuming, as we are willing to do, that the MSS. on which Dr. Conwell relies were really copied from older ones, which embodied traditions of long anterior ages, and that those traditions for the most part rehearsed actual facts, we may still hesitate to accept dates and minor details; such, for instance, as the account of a Druid informing his prince of what was occurring in Jerusalem at the time of the crucifixion, and the death of an Irish Christian in the year 33 of our era. The book, however, contains some beautiful illustrations of very interesting and ancient inscribed monuments; and, if it contain matter which does not appear to be absolutely essential, it will be the more useful to those who are not intimately

acquainted with Irish archæology, while to those who are its perusal, if not its possession, will be indispensable. We observe that Dr. Conwell is seeking subscriptions for a larger illustrated work on the royal cemeteries of Taillten and Brugh, which will, we doubt not, completely exhaust the subject.

THE DRUIDS, ANCIENT CHURCHES, AND ROUND TOWERS OF IRELAND.
By the Rev. Richard Smiddy. 2nd ed. Dublin: W. B. Kelly.

THIS is a very erudite work, containing much that is curious and true, and perhaps more that is curious *if* true. To the former category belong, it may be, more of the philological speculations than some philologists would willingly allow; to the latter belong such statements as that the Phœnicians were a Scythian colony, and that Celtic was probably the first language spoken by man. For Mr. Smiddy, the Irishman appears to be the Celt *par excellence*, the Gauls and Britons being practically nowhere; and it was in Ireland, and not, as Cæsar tells us, in Britain, that the head-quarters of Druidism were established. It is a pity that Celtic antiquaries should indulge in statements which are not thoroughly susceptible of proof, because the great amount of truth which is contained in Celtic traditions and MSS. is thereby much discredited. Mr. Smiddy is, moreover, a philologist or nothing; and, although there probably is, as we have already intimated, much truth in some of his views, yet, like all who depend mainly on philology, he occasionally makes some curious blunders. For instance, having described what the French call a *menhir* under the Irish name *dallan*, he proceeds to confuse that word with *dolmen*, which everyone knows to be the name of quite a different kind of monument. The principal object of Mr. Smiddy's book, which, with all its peccadilloes is well worth reading, is, however, to demonstrate that the Round Towers were baptisteries attached to the ancient abbeys and episcopal churches. Much can undoubtedly be said for this theory, and, although its truth is not yet established, we think it is as good as any other which has been propounded.

JO. FRID. BLUMENBACHII NOVA PENTAS COLLECTIONIS SUE CRANIORUM DIVERSARUM GENTIUM TAMQUAM COMPLEMENTUM PRIORUM DECADUM. Nach dem Tode des Verfassers herausgegeben von Dr. Med. H. v. Jhering. 4to. Göttingen, 1873. ("New Pentade of J. F. Blumenbach's Collection of Skulls of different Nations, thus completing the former Decades." Issued after the death of the author; by Dr. H. von Jhering.)

WHEN the writer visited Göttingen, the dawning city of craniology, in the year 1864, under a strong impression that Blumenbach had, previous to his decease, got further tables executed for the

continuance of his "Decades Craniorum," he waited upon the famous Dietrich's publishing establishment to ascertain whether any such plates had been prepared, and were to be found, or impressions from them, in their warehouses. He was politely received by one of the partners, who, after some explanatory conversation, assured him in very decided terms that no such plates had ever been executed under the instructions of the great craniologist, and that none such existed, much less impressions from them. But as this assurance, although given in the most candid and affable manner, did not at all satisfy the inquirer, the partner offered to send for one of the oldest clerks in the establishment, whose recollection of all the business transactions of the house was more complete than that of any one else, in order to inquire of him whether such plates had ever existed. This offer was gladly accepted, and the clerk of mature age soon came into the apartment. The result of an explanation and conversation with him was equally conclusive against the object of search. They had no such plates, and never had had. As a last forlorn hope, it was proposed that the clerk should search the warehouses, and especially that part which contained the stock of Blumenbach's publications; and it was agreed that the inquirer was to call again in two days to ascertain the result. On making the call, the writer was surprised and delighted to find that the clerk had disinterred from their old hiding-place *five* new and unpublished tables, which had evidently been etched under the eyes of Blumenbach, with a view to the continuance of his "Decades Craniorum."

In the year 1864, when at Göttingen, the writer had much intercourse with his excellent friend, Professor W. Keferstein, since deceased, and informed him of the discovery thus made. Professor Keferstein subsequently mentioned it in the "Gött. gelehrte Anzeigen," March 4th, 1868.

It has remained for the zealous Dr. Jhering to publish this addition to the celebrated Decades, in the *brochure* at the head of this article. The plates are: LXVI. *Scoti borealis ex insula Hebrida* Egg. LXVII., *Konägi ex insula Kadjak*. LXVIII., *Caffri*. LXIX., *Mexicani genuini*. LXX., *Novo-Zelandi*. They are all calvaria, *i.e.*, without lower jaws, except the New-Zealander, which is a prepared head, tattooed.

The Pentade is to be procured at G. T. Manz'sche Buchhandlung, in Vienna. J. B. D.

JOURNALS.

REVUE D'ANTHROPOLOGIE. Publiée sous la direction de M. Paul Broca, Paris.

THE third number, for the year 1872, of M. Broca's excellent Review opens with a memoir, by the editor, "On Classification

and Craniological Nomenclature according to the Cephalic Indices." It is impossible to abstract this important memoir, which is a defence of the author's alteration of the classificatory system of Retzius by the formation of the divisions, *sous-dolichocephali*, *mesaticephali*, and *sous-brachycephali*, and a criticism of the classification and nomenclature proposed by M. Welcker, Professor Huxley, and Dr. Thurnam. M. Broca justifies his position by the remark, "The last division of the nomenclature of Mr. Huxley would not include *any race*, and the first would include only a *single one*, the Laponic race; for the series of artificially deformed skulls, of which the brachycephalism is, so to speak, without limit, do not enter into calculation. The changes of M. Thurnam would be less inconvenient; but, if any one takes the trouble to apply them to my table, they will see, nevertheless, that they are still defective, since they leave only three races in the dolichocephalous group properly called, whilst the brachycephali form a group much too numerous." From the table of cephalic indices which M. Broca gives, it appears that the Esquimaux of Greenland are the most dolichocephalic, and the Lapps the most brachycephalic (undeformed) of all races. M. Broca's memoir is followed by a "Contribution to the Study of the Development of the Cerebral Lobes of the Primates," by Dr. Hamy; and a "Classification of the various Periods of the Age of Stone," by M. Mortillet, in which the author discards the divisions based on the fauna accompanying human relics, and re-establishes that founded on industrial data. The next article is a "Note on the Supernumerary Lobes of the Right Lung of Man," by M. Pozzi. It is followed by an account of the Boschimans (Bosjesmans) of Western Africa, by Dr. Vincent, supplemented by M. Pozzi with various anatomical details. We are sorry that we are not able to give Dr. Vincent's description of this curious race. The remaining articles in this number of the *Revue d'Anthropologie* are a description by Dr. Topinard of the craniophore, an instrument invented by him for measuring the projections of the skull; and a note by M. Hovelacque on the subdivisions of the common Indo-European language.

The fourth number of the first volume of the *Revue d'Anthropologie* contains, as its leading article, an important memoir, by M. Broca, on "The Constitution of the Caudal Vertebrae among the Tailless Primates;" illustrated with two plates of engravings. The conclusions arrived at by M. Broca, the facts supporting which we have not space to reproduce, are as follows:—"The character of the presence or absence of the tail, considered from a purely morphological point of view, has an importance wholly secondary. It is observed, here and there, in certain species which occupy the most different positions in the series of primates; but the question alters its character completely when it is seen from an anatomical and zoological point of view. It is then observed that the tail can disappear among the primates in three different manners, according as the atrophy, or the defect of development, acts at the same time

and in a manner nearly proportional on the two segments of the caudal apparatus (true caudals and false caudals); or, as it proceeds from the extremity of the tail towards the base, by causing the second segment to wholly disappear, and by more or less lessening the first without altering it; or finally, as it proceeds in the reverse manner, by altering the first segment much more than the terminal segment. In this last case, the first segment, widened, flattened, and become immovable, unites itself to the sacrum and forms the *supplementary sacrum*, whilst the parts of the terminal segment, flattened and widened like the preceding, preserve their mobility and form the *coccyx*." The first of these three types is not anatomically distinguishable from that of the primates having a tail. The second type is distinguished by decisive anatomical characters, but zoologically and otherwise it is insignificant, because it is observable only with the magot, and because it does not unite itself to other types by any intermediate form. The third type is that of man; anatomically, it is better characterised than the second type, and further, it has a double zoological signification. On the one hand, "the profound modifications of the caudal parts are *en rapport* with the functions of a basin adapted to the biped attitude, so that the characters proper to those parts ought to be considered as *characters of improvement*; and, on the other hand, these characters are *serial*, since they meet, without any exception, in every species of the family of the anthropoids, and become weakened somewhat in the inferior species of this family, in order afterwards to disappear definitively in the rest of the series of primates. They reunite, therefore, the two conditions in which the *characters of evolution* are recognised, and they thus acquire zoological importance which has been disregarded even to the present day, in default of having distinguished the various modes of disappearance of the tail." The remaining memoirs must be passed quickly over. The first is on the "Ethnogeny of the Populations of the South-west of France," by M. Lagneau, who says that his conclusions, although incomplete, suffice to show how many different races have concurred to the formation of these populations, and also how necessary it is "yet to collect historical documents, archæological facts, ethnological descriptions, osteological measurements, statistical researches, to enable us to know these populations anthropologically." The following memoir is one of great importance, by Dr. Topinard, on "Alvéolo-sur-nasal Prognathism." This subject, which is almost new, is most exhaustively treated by the talented author, who says that it results from the facts and considerations set forth, "that the variety of prognathism called alvéolo-sous-nasal, considered with its two extreme forms—the one improperly called *orthognathism*, and the other in current languages *prognathism*—and in its intermediate form ought to be divided from the other varieties with which it has been confounded, and furnishes a character of the first rank for the distinction and grouping of races. The first form would be special to the white races; the second, special to the black races; and the third more particularly to the yellow races. This

character always agrees in our series with the notions already acquired by Anthropology, and in doubtful cases has almost decided the difficulty." Finally, M. Hamy furnishes "Anatomical and Ethnological Observations with regard to a Human Skull found in the Quaternary Sands of Brux, in Bohemia." As to this skull, M. Hamy confirms the opinion expressed by Professor Rokitansky, by whom it was first described, that it reproduces, in a weakened form, the features of the man of Neanderthal; and he adds that "it is now certain that neither this individual, nor the others who reproduce, while weakening them, his cephalic characters, were idiots, or pathologically deformed, but presented, all and each, a collection of ethnic characters which we still find sporadically in the same countries." M. Hamy thinks that we must look for the nearest present congeners of this ancient race in the East, and he believes that the day is not far distant when it will be necessary to unite in one family, formed of two ethnic groups, the primitive European race and certain races, such as the Gonds, of the Indian mountains.

MATÉRIAUX POUR L'HISTOIRE PRIMITIVE ET NATURELLE DE L'HOMME.

Edited by M. Emile Cartailhac and others. Musée d'Histoire Naturelle, Toulouse.

FURTHER numbers of this excellent serial have reached us. We extract the following details, from a mass of valuable matter, the whole of which will amply repay perusal:—

The Viscount Lepic has been exploring the caverns of Savoy, and has found at Savigny one called the "Grande Barme," which yields in abundance the testimony to its early habitation, with which we are becoming so familiar, in the shape of polished axes, flakes, pottery, bones, and remains of fires, and a few fragments in bronze. The pottery was not made with a wheel, and resembles that found in the lake of Bourget. Human bones were also mingled with the *débris* in such a condition as to favour suspicions that the inhabitants were cannibals; but the remains of some skeletons which appeared to have been interred entire, and to have belonged to the same period, were found in a small cave close by.

Fourteen pages of one number are devoted to a description of an ancient manufactory of flint weapons at Bois de Rocher, Pleudihen, Dinan, and further instalments are promised. The remains of a sepulchral dolmen, about 40 feet long, are stated to exist, or perhaps by this time *to have existed*, in the same place. Lumps of flint and other stone from a distance were found on the spot, brought doubtless with the view of conversion into tools and weapons.

An extract from a work of M. Louis Lartet "On the Geology of Palestine and the neighbouring Countries," dwelling particularly on the "traces of prehistoric man in the East," possesses special interest. Flakes and scrapers, and even bone implements, would

seem to be almost as common in Palestine, Egypt, and Babylonia, as elsewhere. Sepulchral dolmens have been discovered too by Messrs. Irby and Mangles in the neighbourhood of the Jordan, and also to the east of the Dead Sea, which do not however resemble Kit's Coty House, as those gentlemen suggest, but which do strongly resemble Chun Quoit, in Cornwall. In one side of each of these dolmens a hole is cut through, round which the stone is cut away as though to receive a shutter of wood or stone which might be removed at pleasure; there are also in the neighbourhood sepulchral niches cut in the rocks, the entrances to which have a similar groove round them. At Chun Quoit there appears to have been a doorway walled up with small loose stones, some or all of which would have been easily movable. Sepulchral niches with fittings for shutters, like those of Palestine, are also found in Algeria, where they are called "haouanet," and where dolmens and other sepulchral erections also abound, between which and those of Palestine there is much resemblance. M. Lartet and the Duc de Luynes have visited all the monuments discovered by Messrs. Irby and Mangles and taken some skulls from them, which, however, they afterwards found to belong to Arabs of a very modern date. M. Lartet is somewhat disposed to attribute these dolmens, which, as he points out, are much smaller than those of Brittany, to some pre-Jewish inhabitants of Palestine, whom he considers to have used stone weapons exclusively, but is not prepared to say whether these inhabitants were those whom the Jews found there, their ancestors, or a preceding race.

M. Gervais describes some ancient remains of humanity brought by M. Seguin from the Argentine Republic.

M. Desor describes certain metal implements, &c., collected in Siberia by MM. Lapatine and Morel, which are of considerable antiquity and belong to a distinct and high form of civilization, so high indeed that M. Desor thinks they must belong either to a remote period when the climate of Siberia was less severe than at present, so that its inhabitants would have had more leisure to attend to the elegancies, as well as the necessities of life, or to a comparatively recent and civilized people, which settled itself in Siberia, to secure the minerals and salt found there, and employed the wealth gained by their means in procuring such comforts and luxuries as circumstances permitted.

ZEITSCHRIFT FÜR ETHNOLOGIE. Organ der Berliner Gesellschaft für Anthropologie, Ethnologie, und Urgeschichte.

THE double part, 3 and 4, for the year 1873 of this journal, brings down the report of the proceedings of the Berlin Anthropological Society to the 10th May. The first portion of it is occupied by an elaborate memoir, by Dr. v. Jhering, on the "Reform of Craniometry," of which we are very sorry to say the space at our com-

mand will not permit us to give an analysis; an account by the missionary Th. Jellinghaus of the language of the Munda Kohls in Chota Nagpore; and the first instalment of a German adaptation by Oscar Flex of Colonel Dalton's Descriptive Ethnology of Bengal. It also contains a full summary of Anthropological and Ethnological literature for the year 1872. Part 5 of the *Zeitschrift* for 1873, besides the second instalment of "Dalton's Descriptive Ethnology of Bengal," contains the following articles: *Archæological Excursions through the Mark of Brandenburg*, by Ernst Friedel; the *Syrian Threshing-board*, by Dr. S. G. Wetzstein, who treats of it not only in its proper character, but also as an instrument of torture, and as having an important use at weddings and funerals; a reply by Dr. Jhering to Herr Fritsch's remarks on his criticism of the latter's work on "The Natives of South Africa;" and a letter from Herr A. B. Meyer, to Herr Virchow, on the Papuans and New Guinea. The writer of this letter states that, notwithstanding the prevalence of what is usually described as being the Papuan type of feature, he was always able to distinguish three types among both the coast and the mountain population, which might be roughly described as Jewish, European, and Malayan. Dr. Meyer confirms the statements of other travellers that the hair of the Papuans always grows in tufts, unless it is attended to and combed out.

NOTES.

AMONG the distinguished men of science whose labours had a more or less direct bearing on Anthropology, and who have died during the last twelve months, we have to number Dr. Nott, the co-editor with Mr. G. R. Gliddon of the important works "Types of Mankind," and "The Indigenous Races of the Earth;" Count Strzelecki, the Australian traveller and geologist; Captain Charles F. Hall, the Arctic voyager, whose name will ever be associated with the unfortunate "Polaris" expedition; Sir Robert J. M'Clure, the discoverer of the north-west passage; Dr. J. Thurnham, the co-adjutor of Dr. J. Barnard Davis, F.R.S., in the preparation of the magnificent work "*Crania Britannica*," and the propounder of the long-head, long-barrow, and short-head, round-barrow theory; Dr. Livingstone, the most enterprising of African travellers; Lieutenant Garnier, one of the most promising of French explorers, who was assassinated in Tonquin; M. Stanislas Aignau Julien, the distinguished student of Chinese literature; M. Quetelet, the noted Belgian writer on moral and social statistics; and Herr Alexis Fedtschenko, the Russian naturalist, renowned for his exploration of Turkestan. The death of M. Fedtschenko is especially to be lamented, as, not only was he young, but he died under very

painful circumstances. We extract the following account of his death from "Globois :"—

Fedtschenko was travelling in Switzerland, and on the 12th September, leaving his wife and infant child at Montreux, he started for the foot of Chamouni. On the 13th he fixed his residence at the Hotel of the Alps, and the same day he went to the Payaux Museum for the purpose of engaging two experienced guides. Herr Payaux recommended him his nephews, two brothers, simple country-people. Early on the morning of the 14th September the three travellers made their way to the Col de Géant, and about eight o'clock arrived at the inn of Montanvert, where they rested in order to have breakfast and to furnish themselves with provisions. They were still distant from the Gripfel only two hours' walk, when a heavy snowstorm compelled them to turn back. About five o'clock in the evening all the provisions, except the wine, which Herr Fedtschenko could not drink, were consumed, and the young naturalist soon felt his strength failing; his feet refused to do him service. Still he continued, with his guides' assistance, to move forward; but at length he was so exhausted that he fell to the ground. Unfortunately, one of his guides also became unwell. When Fedtschenko felt that his end was near, he repeatedly, according to his guides, entreated them to leave him behind; still they remained with him until two o'clock in the morning, and they could make up their minds to leave him only when they saw he was in the death struggle. This is the account of Fedtschenko's sad fate given by the guides, and there does not appear to be any reason to doubt its truth. At the time of his death Fedtschenko was preparing for the press a book giving the results of his Asiatic explorations, and this will probably be completed by his widow.

THE *Adelaide Observer* publishes the following extracts from the MS. of a work on the Aborigines of Australia, by Mr. Samuel Gason, a police trooper, who resided in the interior of that Continent from the year 1865 down to a recent period :—

THE Dieyerie tribe numbers about 230, and the four neighbouring tribes—the Yandrawontha, Yarrawaurka, Anminies, and Wongkoooro—about 800; in all some 1,030 persons. Their country is about 630 miles north of Adelaide, and is bounded at the most southerly point by Mount Freeling, at the most northerly point by Pirigundi Lake (on the Cooper River), at the most easterly point by Lake Hope, and at the most westerly point at a part yet unnamed, but about 80 miles from Lake Hope. This country is traversed by Cooper's Creek—there only a chain of lakes without any defined channel. Their language is understood by the four neighbouring tribes with whom they keep up ostensibly a friendly intercourse, inviting and being invited to attend each other's festivals and mutually bartering, but in secret they entertain a most deadly enmity to each other. At the same time they believe that they came from a parent stock, and even intermarry.

A more treacherous race I do not think exists. They imbibe treachery in infancy, practise it until death, and connect no sense of wrong with it. Gratitude is to them an unknown quality. No matter how kind or generous you are to them, you cannot assure yourself of their affection. Even amongst themselves, for a mere trifle they would take the life of their dearest friend; consequently they are in constant dread of each other, while their enmity to the white man is only kept in abeyance by fear. They will smile and laugh in your face, and the next moment, if opportunity offers, kill you without remorse. Kindness they construe into fear, and had it not been for the determination and firmness of the early settlers they would never have been allowed to occupy the country. The tribe is numerous, and if they knew—and it is feared they will eventually learn—their own power, the present white inhabitants could not keep them down, or for one day retain their possessions. They seem to take a delight in lying, especially if they think it will please you. Should you ask them any question, be prepared for a falsehood as a matter of course. They not only lie to the white man, but to each other, and do not appear to see any wrong in it.

Notwithstanding, however, what has been said of their treachery, and however paradoxical it may appear, they possess in an eminent degree the three great virtues of hospitality, reverence to old age, and love for their children and parents. Should any stranger arrive at their camp, food is immediately set before him. The children are never beaten, and should any woman violate this law she is in turn beaten by her husband. It is singular, however, that although they cherish this tenderness for their remaining offspring, infanticide is largely practised amongst them. Their whole life is spent in bartering; they rarely retain any article for long. The articles received by them in exchange one day are bartered away the next, whether at a profit or loss.

Concerning their traditions, the following occurs:—

THE CREATION.—In the beginning, say the Dieyerie, the Mooramoor made a number of small black lizards (the kind alluded to are still to be met with under dry bark), and being pleased with them he promised they should have power over all other creeping things. The Mooramoor then divided their feet into toes and fingers, and placing his forefinger on the centre of the face, created a nose, and so in like manner afterwards eyes, mouth, and ears. The Spirit then placed one of them in a standing position, which it could not, however, retain, whereupon the Deity cut off the tail and the lizard walked off erect. They were then made male and female so as to perpetuate the race and leave a tribe to dispute their ancestry with Darwin's monkeys.

MURDOO.—Subdivision of Tribe into families.—Murdoo means taste, but in its primary and larger signification implies the family founded after the following tradition. After the Creation, fathers, mothers, sisters, brothers, and others of the closest kin intermarried promiscuously, until the evil effects of these alliances becoming manifest, a council of the chiefs was assembled to consider in what way the existing troubles might be averted. As the result of their deliberations they petitioned the Mooramoor, who ordered that the tribe should be divided into branches, and distinguished one from the other by different names, after objects animate and inanimate, such as dogs, mice, emu, rain, iguana, and so forth. The members of any one branch were not to intermarry; but permission was given for those of different families to enter into conjugal unions. This rule is still observed, and the first question asked of a stranger is, "What Murdoo?" namely, of what family are you?

CREATION OF THE SUN.—Their traditions supposed that man and all other beings were created by the moon at the bidding of the Mooramoor (Good Spirit). The tribe finding the emu pleasant to the sight, and judging it to be eatable, but being unable, owing to its swiftness, to catch it during the cold that then prevailed, appealed to the Mooramoor to cast some heat on the earth, so as to enable them to run down the desired bird. The Mooramoor, complying with their request, bade them perform certain ceremonies (which they still observe), and then created the sun.

Mr. Gason gives a very curious account of the Bookatoo Expedition for Red Ochre, and the superstitious practices connected with it, but we have not space to quote further.

The following is the newspaper report of the Address delivered by Professor BUSK, at the Anniversary Meeting held in January last of the Anthropological Institute:—

The President referred to the finances of the Institute. Although the receipts are adequate for the necessary expenditure on the present economical principles of management, they do not allow the Society to pry off more of the debt or to enlarge the scope and usefulness of the Institute. Until the indefensible secession of members early in 1873 on a purely personal question, the Institute, since its formation, had paid off the combined debts of the two old societies at the rate of £100 a year. He appealed to the members to make an united effort to extinguish the debt

of £800. A year's income would do it. The President further announced that nearly £250 had been promised by members present at a council meeting held that day, provided the sum of £500 be contributed by other members of the Institute. The President then delivered the Annual Address, in which he viewed the work done during 1873 by English and foreign Anthropologists. Amongst a large number of topics, he adverted at considerable length to the important contributions to craniometry by Dr. H. Von Jhering and Dr. P. Broca, criticising the respective methods employed by those distinguished Anthropologists; and concluded that part of his address with the observation that the study of craniology is almost futile when applied to highly civilized, and consequently much mixed peoples, and that its results are the more certain in proportion to the purity of race; that purity at the present time was rapidly disappearing, and with it the surest data for the determination of the problems involved in the antiquity and physical origin of man.

Our contemporary the *Spiritualist* reprints from the *Banner of Light* (Boston, U. S.) of 10th January, 1874, the following information imparted by the spirit of an ancient Egyptian to Mr. J. M. Peebles, late American Consul of Trebizond, on the top of the Great Pyramid through the mediumship of Dr. Dunn:—

But you wish to know the purpose of *this*, the oldest of the pyramidal structures. The aim was multiform. Carefully considering the constellations, the position of the North Star, and the shadow cast by the sun at the time of the equinoxes, it was built, upon mathematical principles, to the honour of the *Sun-God* that illumines and fructifies the earth; built for the preservation of public documents and treasures during wars of invasion, and built as a store-house for *grain* during famines and devastating floods, with that mystic *coffer* in the centre, as an exact measure for the world. An universal system of weights and measures, an universal currency, and an universal government were Utopian theories of the ancients before my period of time. This pyramid was not built by forced toil and at a great sacrifice of life, but by gratuitous contributions, the servants of the wealthy doing the manual labour. There are seven granary apartments in the structure, with shafts leading from each to the common granary of the coffer, now called the King's Chamber. These shafts have not yet, to my knowledge, been discovered.

During long rains and terrible floods, ancient Memphis was twice swept away—once even to its walls, with all its inhabitants, in a single night. Convulsions of Nature and terrible floods were then common. Immediately after one of these, the pyramid was commenced, requiring more than a generation in the construction. It was completed before the great flood and the wars of the Shepherd Kings.

Once in my time the water rose and rolled over the very apex of these stones. It rained *forty five consecutive days*; and while torrents swept down the Nile valley from the south, stout, heavy winds from the Mediterranean drove the water up the country, piling wave upon wave, till the structure was completely submerged. But, though thus buried in the flooding waters, the treasures and well-filled granaries remained to feed, when the waters subsided, the famishing people who had fled southward to the hilly country.

Assuming for the sake of argument that these statements really emanated from an ancient Egyptian, they seem to bear so much resemblance to those of Professor Piazzi Smyth as to raise the question whether he too may not have been "entranced" when he wrote his book on the subject!

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ANTHROPOLOGIA.

Proceedings of the London Anthropological Society.*

ORDINARY MEETING,

*Held at 37, Arundel Street, Strand, London, on Tuesday, 6th January,
1874,*

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The Minutes of the preceding meeting were read and confirmed.

Presents announced:—For the Library, 2 vols. of Memoirs by Dr. Broca, from the Author; 5 Nos. of Proceedings of the Paris Anthropological Society, from the Society.

The thanks of the Society were voted to the donors.

The Honorary Secretary (Mr. A. L. Lewis) read a short

NOTE ON THE RELATION OF THE HIEROGLYPHICS OF EASTER ISLAND TO THOSE OF CENTRAL AMERICA,

IN which, after describing the small inscribed wooden tablets found at Easter Island, he said that he looked upon the inscriptions as hieroglyphics, principally on account of the arrangement of the figures, which had a resemblance to the boustrophedon writing of the Greeks. A certain resemblance, he said, existed between some of the Easter Island figures and some of the South American hieroglyphics, but not sufficient to found any theory upon.

MR. PARK HARRISON, M.A., considered the Easter Island inscriptions to be principally iconographic or pictorial.

* The Council desires it to be understood that, in publishing the papers read before the Society, and the discussions thereon, it accepts no responsibility for any of the statements or opinions contained therein.

After some remarks from DR. CARTER BLAKE, MR. GRAZEBROOK, MR. JEREMIAH, and MR. CHURCHILL, the following Paper was read :—

THE ARTHURIAN THEORY OF "RUDE STONE MONUMENTS,"

By A. L. LEWIS, Hon. Sec. London Anthropological Society.

THE theory which Dr. Fergusson has propounded respecting the "rude stone monuments" of Britain and other countries, though it has now been before the public for some little time, has not yet received the attention to which it is entitled—if not on its own account, at least on account of the great ability and well won reputation of its author. Perhaps, however, this apparent neglect of its claims is due to the fact that, if not absolutely new in all its details, it is so revolutionary that, when presented to the world on such authority, time has been necessary to consider it fully in all its bearings before entering into a discussion upon it.

Dr. Fergusson's book consists of more than 500 octavo pages, crammed with minute details and arguments respecting "rude stone monuments" in every part of the globe; and it is therefore obviously impossible to notice in a small space all the points he raises. It may, however, be found possible to show that his main positions are untenable, in which case the rest must, for the most part, be abandoned.

To this end it may be well first to state what Dr. Fergusson's theory is.

Turning to the end of his book, we find that he considers the Indian circles and dolmens to be degraded imitations of Buddhist topes and dagobas; he then traces the Buddhist influence, architecturally and theologically, into Arabia, North Africa, Spain, France, and the British Isles, if not into North Germany and Scandinavia, in all which countries, but especially in France, large sepulchral and "free standing" dolmens are found, which he attributes to periods ranging from the fifth to the eleventh centuries of our era. On the other hand, he portrays a race which set up circles of great stones as memorials of their battles—sometimes as burial places for the slain; and he traces this race from Scandinavia into Britain, Brittany, and possibly further south, thus making it cross and intermingle with the stream of dolmen builders already described. The large British circles, such as Avebury, Stonehenge, &c., he attributes to the victorious army of King Arthur!

This last extraordinary announcement leads us directly to the point at which Dr. Fergusson appears to have got into a wrong groove. The theories of continual restless progress and development which now exercise such fascination on every side have completely taken possession of him; and, not content with insisting that the same people would not have erected Avebury and Stonehenge and yet have gone on for hundreds of years attempting nothing greater than

“wretched mole-hills of barrows,” (as if grassy mounds and sumptuous monuments did not exist contemporaneously at Kensal Green), he is almost ready to sacrifice his own “Arthurian” theory at the shrine of “progress” and to attribute the “Arthurian” circles to the Danes.

According to his view, as nearly as the present writer can make it out, our British ancestors had gone on for hundreds of years attempting nothing greater than “wretched mole-hills of barrows” and using implements of stone ; and would have gone on doing so for hundreds of years longer, had not the Romans come, seen, and conquered. Thus he says :—“Without laying too much stress on the nakedness and blue paint of our ancestors, all history and the testimony of the barrows would lead us to suppose that the inhabitants of these islands before the Romans occupied it, were sparse, poor in physique, and in a very low state of civilization ;” but their condition having improved “during the four centuries of peaceful prosperity of the Roman domination,” they became more capable of erecting such a monument as Stonehenge.

The remains of the ancient Britons discovered in their barrows do not seem, according to Dr. Thurnam and others, to have been those of men who were either physically or mentally inferior, but rather the reverse ; and if we turn for a first instalment of “all history” to Cæsar, we find that even if they painted themselves (a trifling matter of fashion, continued by some of their female descendants to the present day, who also wear skins—of seals), they were no mere savages. They had wheeled vehicles and iron, which not even the civilized Mexicans or Peruvians ever had ; corn, gold, and metals generally ; organization, discipline, and many material evidences of civilization. The great Druidic hierarchy, *which was acquainted with the use of letters*, had its chief seats of learning in these islands, and taught philosophy, art, and science, perhaps of a kind not more beside the mark than much which yet passes under those names. The tremendous power which Cæsar, Strabo, and others attribute to the Druids might well have been exercised in constructing the monuments whose simple massive grandeur impresses all beholders ; and we may well believe that long periods of “peaceful prosperity” occurred before the Roman advent in which it might have been so employed. Turning to Tacitus and other classic authors we find that the first of the “four centuries of peaceful prosperity of the Roman domination” was consumed in fierce and bloody struggles, contested in a manner which shows conclusively that the Britons (allowing for every exaggeration as to the numbers slain) were neither “sparse” nor “poor in physique” at its commencement, whatever they might have become at its close. That population and civilisation did increase during part of the Roman domination is no doubt true, but both must have receded to some extent in the troubled times which witnessed its close. Archæologists are, however, beginning to see that the Romano-British civilization was preserved in the cities, and survived to be the parent of our own.

For Dr. Fergusson, however, the Briton was a savage from the beginning and remained so to the end; of himself he could do nothing. Even the differences between Stonehenge and our other circles he attributes to "the fact (?) that, alone of all the monuments we know of its class, it was erected leisurely and in time of peace by a prince retaining a considerable admixture of Roman blood in his veins." So little indeed does he believe in the possibility of a Briton being anything but a savage, that—ignoring the fact stated by Cæsar, that the Druids were acquainted with the Greek letters before the Roman advent; the obvious conclusion, from coins inscribed with their names, that the British princes at least must have come to know something of Latin letters; and his own statement that the still more savage Hibernians used alphabetic writing in the third century—he deliberately founds his theory on the monstrous assumption that *neither Arthur, Merlin, nor any of their army of ten thousand men (more or less) could read or write*:—"had they been able either to read or write, an inscription would have done more than the two or three hundred stones of Avebury, but because they could not write they raised them, and for that reason also left us the problem of finding out why they did so."

This inconsistency, which of itself seems to the present writer to be fatal to the whole "Arthurian" theory, does not by any means stand alone. It is to the shores of the Baltic, *i.e.* to the Teutonic and Scandinavian invaders of Britain, that Dr. Fergusson traces the custom of marking battle fields with circles, triangles, and lines of stones; and, to be consistent with this view, it is on the site of the victories of the Teutons and Scandinavians that we should expect to find them in Britain, and not on fields from which they were ignominiously driven; and where they had consequently no time to display their peculiar propensities. Dr. Fergusson has, however, identified, to his own satisfaction, though confessedly without any particular evidence to support him, the site of each of Arthur's battles. Silbury Hill for him marks the spot where the battle of *Badon Hill* was decided; and the circle at Avebury, the place where those slain in that battle were buried, though how the possession of *Waden Hill* should have been decided on the site of Silbury is anything but clear.

The erection of Stonehenge, Dr. Fergusson attributes to Aurelius Ambrosius and Merlin, in conformity with Geoffrey of Monmouth's history, thus making it the first of the "Arthurian" circles instead of the last, as many archaeologists believe it to have been; and he compares the trilithous, which alone distinguish it from other circles, to certain Buddhist erections with which he also finds connecting links in Syria and Tripoli. Now, without denying that there may be, and probably is, much truth mixed up in Geoffrey of Monmouth's tales, we may certainly decline to accept all the details he gives us about Stonehenge; we may, indeed, believe that a massacre of British nobles, and their burial took place at or near a deserted Druidic temple, and we may also believe that Ambrosius thought fit

to be buried on the spot himself, and we may even, if anxious to do so, assume that he erected the trilithons, which are so unique, by way of adding ornament and importance to the spot ; but there is really no reason why we should go so far as this. If, however, we assume all the rest of the circles to be older, we can see that the trilithons might have been added to this one under such a semi-classic semi-Buddhist influence as Dr. Fergusson suggests ; but if the other circles were erected in imitation of this one, and only a few years later, it is not easy to perceive why the trilithon form should not have been followed.

The men who placed the stones of Avebury in position could certainly have erected a stone "gallows" there if they had thought fit, and that without spending more time or trouble than they actually did.

Dr. Fergusson finds two thousand "mole-hill barrows" in the Orkneys, which he thinks belonged to the Picts, but only one large sepulchral dolmen (Maes Howe), which he looks upon as the royal burial place of the Scandinavian Jarls, and it must be confessed he makes out a fair case for supposing them to have been buried in it. But it is by no means unlikely that the two thousand barrows were the burial places of minor Picts, and Maes Howe the sepulchre of their chieftains, and that the Scandinavian Jarls, if they used it at all, simply made use of what they found ready made to their hands. The neighbouring circle at Stennis, however, perplexes him very much. It is not, as he admits, *necessarily* of the same period as the dolmen, and yet he cannot overcome the desire to assign both to the same builders. Again, it so much resembles, as he says, the circles at Stanton Drew, in Somersetshire, that he cannot imagine four centuries to have elapsed between the building of the two, and would indeed almost rather refer Stanton Drew to Hubba and a few Danish crews than refer Stennis to the Picts ; and it must again be confessed that in some respects he would be more logical in assigning all the circles to the pirates of the Baltic, than the majority to them and a few to King Arthur, who could have had even less inducement for copying their customs than Dr. Fergusson imagines the Scandinavians to have had for adopting the burial-places of the Picts. However, if Stennis be Scandinavian, so, thinks Dr. Fergusson, is Stanton Drew ; and, if Stanton Drew and the Roll Rich are Scandinavian, so, as the present writer will presently show, are Avebury, Arberlows, Stonehenge, and the rest ; but then the "Arthurian" theory disappears altogether.

But what probability is there that the Danes could have erected all ? The remains found in connection with them, and especially those remains on which Dr. Fergusson relies to prove their Brito-Roman authorship, cut this alternative off from him, neither is it consistent with the nature of the circles themselves. Moreover, if, as he rather seems to suggest, the circles, as well as the dolmens, are of Buddhist origin, it is inconceivable that the erection of circles in Europe should have commenced in Scandinavia, and that of the

dolmens have come through Africa and Gaul. There is, however, at Stennis a stone with a hole in it, through which, to a very recent period, persons joined hands on making any solemn engagement, which he declares must be Scandinavian; but holed stones are by no means Scandinavian in their origin. In one form or another the hole occurs in connection with circles, dolmens, and menhirs, in Man, Cornwall, England, Ireland, Gaul, and India, and in short, as Colonel Forbes Leslie tells us, "from Malabar Point to Waterford and Stirling," and everywhere in connection with the same superstitions as to its healing virtue, &c.; so that this point certainly makes for the Celtic rather than the Scandinavian origin of the Stennis circle.

It is not the intention of the present writer to follow Dr. Fergusson far out of Great Britain, especially as some of the authorities he quotes are confessed by himself to be doubtful, and some have been proved to be so by other writers. Thus, Mr. Lukis, in an able paper read before the Society of Antiquaries, has entirely demolished the data Dr. Fergusson had collected from French authors (for whose errors it is only fair to say that he is not responsible); has shown the non-existence in that country of the "free-standing" dolmens which Dr. Fergusson compares to certain Buddhist monuments; and has shown that the dolmen at St. Germain-sur-Vienne, which he refers to the 11th century, is but the remains of an early monument "converted" at that time into a Christian shrine.

Returning, therefore, to the race or races—for whether they are one or more we have yet to discover—of circle-builders and dolmen-builders, we are informed that "a circle-building race came from the north, touching FIRST at the Orkneys" (Stennis being attributed by Dr. Fergusson to the *tenth* century, and Stonehenge, Avebury, and Arberlows, to the *fifth and sixth* centuries of our era), "passing down through the Hebrides, dividing themselves in the North of Ireland, one branch settling on the west coast of that island, and another landing in Cumberland and penetrating into England in a south-easterly direction. In like manner we have a dolmen-building race, who, coming from the south, first touched in Cornwall, and thence spread northward, settling on both sides of St. George's Channel," &c. But then, "funeral pomp or tomb-building of any sort is so antagonistic to the habits of any people so essentially Teutonic as the Scandinavians were and are, that we cannot understand their adopting these forms, or indeed stone circles or monuments of any class in a country where they had not previously existed." Dr. Fergusson feels compelled to assume that the Scandinavians were Germans who conquered Lapps and Finns, intermarried with them, and borrowed the "rude stone monuments" from them. This is in admirable harmony with his remark respecting the Stennis circle: "If the Northmen had not hated and despised their predecessors they would never have exterminated them; but while engaged in this work is it likely they would have adopted one of their monuments as especially sacred, &c.," coupled with his suggestion that such a

tomb as Maes Howe “would probably not have been erected even by the Northmen in a country where there was not an underlying Celtic or Pictish population.” If, however, the Celts or Picts were exterminated, had nothing to do with such monuments, and were utterly incapable of constructing them, what influence could they have had in the matter, and in what were the Lapps and Finns superior to the Celts or Picts that they should have exercised an influence on the Norsemen which the Celts or Picts could not exercise?

Circles of some kind or other have been constructed, moreover, in Arabia, Persia, and India, and certainly not under the influence of any northern European race. Dr. Fergusson’s division of the monuments between two races coming from different quarters *at so late a period* cannot, therefore, be upheld, and he must consequently fall back, as he sometimes seems inclined to do, upon the Buddhists for the circles as well as for the dolmens. But then how could the Buddhists have influenced the Scandinavians at the early period at which some of their monuments are known to have been erected?

It appears, however, that it is to the dark-eyed population of Western and Northern Europe that the dolmens, if not the whole of these monuments, are to be attributed. This tiresome and barbarous population, which is always being “exterminated,” but never ceases to exist, has been affiliated by one ethnologist to the Australians, by another to the Negroes, by another to some imaginary “Thibeto-Caucasians,” and by another to the Esquimaux—giving it surely choice enough for a parentage; but to these are now added the Lapps and Finns. There has, however, beyond dispute been a large influence, possibly Phœnician, but more probably Celtic, in Scandinavia; while any Lapp or Finn occupation of Denmark would have been long anterior to the date to which Dr. Fergusson assigns these monuments.

But, says Dr. Fergusson, the “Turanian,” “non-Celtic,” “cave” population of South-Western France yielded in historical times the only considerable number of French Protestants, and “Buddhism is a religion of the Turanian race,” and again (which is very true) “the transition was everywhere easy from the government of the hierarchy of the Druids to that of the similarly organized priesthood of Rome;” so that Romanism is Celtic, and Protestantism is a Buddhist protest against it, and yet it is from Buddhism that all the practices which distinguish Romanism from Protestantism are (according to Dr. Fergusson) derived. To go with him further into his ethnographical conjectures is, after this, unnecessary, the more so as he, like most of our English admirers of the Teutons, appears to be so ill-advised as to regard language as an absolute test of race, in spite of the many instances to the contrary recorded in history.

It is very probable that Buddhism may have exercised a larger influence on Christianity than is generally supposed; but the present writer is rather inclined to think that Christianity, as it now exists,

partakes more of Druidism than of any other form of paganism. It was in western or Druidic Europe that Christianity first became the national religion, and it was not, as Dr. Fergusson himself states, until a British Emperor, Constantine, by the aid of British legions, made it the religion of the Roman Empire, that great corruptions are found to have crept in. Whether Buddha did more than re-organize the faith which bears his name, and how far Buddhism and Druidism may be only different forms of the same primeval religion, are questions too large to enter upon here.*

Having thrown a certain number of stones—with what force or accuracy of aim it is for others to say—at the glass house erected by Dr. Fergusson, it may be well for the present writer to see whether all the panes of his own less extensive edifice are untouched.

The present writer holds that there is no such distinction between the "Arthurian" and the Cornish circles as Dr. Fergusson imagines (King Arthur is reputed to have been a Cornishman himself); that most of the British circles were places for sacrifice; that they and similar structures in Gaul and Britain were erected, for the most part

* To comment in this paper on all the details enumerated by Dr. Fergusson is impossible, and, if possible, would be very tedious, but a few notes by the way may not be out of place.

The stones at Addington, near Aylesford, do not, as he (misled probably by Camden) imagines, form a circle, although a circle, not mentioned by Dr. Fergusson, exists in the neighbourhood. If the Sarsden Stones near Uffington Castle are "arranged as Alfred and his army stood when he first received the shock of the pagans," it was certainly due rather to his luck than to his wisdom that he gained the victory. It is, moreover, quite as likely that the battle of Ethandun was fought at Hampton Common in Gloucestershire, or at the eastern end of the Berkshire range. The great circle, or rather oval, of Arberlows, in Derbyshire, does not conform to Dr. Fergusson's standard measurement, being more than 100 feet and less than 300 feet in diameter; and in one part of the embankment which surrounds it a tumulus has been formed, to all appearance destroying the regularity of the original work. This tumulus contained a cist with two vases and a bronze pin, and it is easy to see that if the circle belonged to the Druidic or pre-Roman period, and fell into disuse, say about 200 A.D., a partly Romanised Briton might, a few years later, make use of the vallum to form a tumulus for a friend, and might be the more readily moved thereto by any traditional sanctity attaching to the place; but it is impossible to suppose that this asymmetrical tumulus formed part of the original plan of the work. The "Roll-Rich," of which Dr. Fergusson speaks rather disrespectfully, is, as will presently be shown, of the same class as Stonehenge, so that it is almost impossible for one to be Brito-Roman and the other Scandinavian.

Dr. Fergusson eagerly snatches at every local tale or tradition (even while confessing its absurdity) which tends to show that the monuments belong to a comparatively recent period, although similar authorities have assigned the erection of half the earthworks and castles in the country to Cæsar or the Devil, the downfall of half its ruined ecclesiastical edifices to Oliver Cromwell, and the execution of half the malefactors in Scotland, between 1680-99, to the pistol of Claverhouse, who has been shown to have had other and more important occupations to attend to. Thus he seizes on the fact that a dolmen called the "Grave of the Four Maols" stands near a spot where four murderers are said to have been hanged and buried in 428 A.D., to show that it was really erected to their memory, as if such an honour were in itself likely, and as if the name would not have become readily attached to it in a generation or two from the death and burial of the four "maols" having taken place near it, and having produced a vivid impression on a population which had forgotten the original owner of the dolmen.

before the Roman occupation, by dark-eyed Iberians or Atlanteans and by lighter eyed Celts indifferently, both of those sections of the population being moved thereto by the influence of the Druids, without whom, it is evident from the classic authors, but little partaking of a religious character could have been done among them ; but that in places where the Romans had little or no power, these monuments were doubtless erected up to a later period.

Dr. Fergusson looks upon the pyramids as descendants of the chambered tumuli (which would at once give the latter a very "prehistoric" antiquity), and upon the dolmens as descendants of the cists enclosed in the tumuli ; and draws sharp lines of demarcation between all these. The present writer regards the pyramid and chambered tumulus as co-descendants of the cavern in the mountain-side, and does not recognize any absolute line of demarcation between the smallest cist and the largest and most complicated gallery and chamber, they being connected by intermediate examples of every size and shape, although differences of style do undoubtedly exist, and exist side by side.

The idea of a cist, whether covered or uncovered, large or small, is one that would naturally occur, and we may say with certainty has occurred, to a variety of peoples at a variety of times and places, so that it is very unsafe to construct any theory of relation or intercourse between those peoples on such a foundation. Of course, when it comes to cutting a little hole in one slab of the cist or dolmen the connection seems closer, but it is not even then absolutely conclusive. In like manner, but less probably, the idea of arranging stones in circles might occur to totally different peoples at different times and places ; but, when we find in addition to those circles single stones or other circles almost uniformly placed in a special position with regard to them, we can hardly suppose the coincidence to be accidental. The outlying stones at Stonehenge puzzle Dr. Fergusson ; they are unnecessary to his theory, and he admits that he cannot account for them. Yet it is to them that we must look for an explanation of the whole question. Of these stones, one in particular stands to the N.E. of the circle, and it has been testified by numerous observers that on the morning of the longest day the rays of the rising sun fall directly over its top into the circle and upon a flat stone called the altar ; and, connecting this with the facts that various observances of the eve of the longest day have prevailed over most part of the region of the "rude stone monuments," and in remote and principally Celtic places still survive, and that the Druids, according to Cæsar, paid particular attention to the heavenly bodies, we may infer that Stonehenge was in some way connected with their rites. But though Stonehenge has afforded us a clue to the use of these outlying stones, they are found elsewhere ; and therein lies the proof of the connection which has in this paper been asserted in contradiction to Dr. Fergusson. At Stonehenge, the Roll-Rich, Dance Maen (an "insignificant" Cornish circle), and the circle on Scorhill Tor an outlying stone is found to the N.E. A circle at

Boscawen-un has a stone in the centre which however *leans* to the N.E.; and it is to be remarked that, where these outlying stones remain *standing*, they are mostly—so far as the present writer knows *always*—in a *leaning* position. At Stanton Drew and at the Cornish “Hurlers” the single stones are superseded by other circles, which stand, however, in a north-easterly direction. At Avebury and Arberlows the surrounding bank would have rendered an outlying stone useless, but of three stones standing thus **I** in the middle, the centre one would seem to have faced in a north-easterly direction. In fact, of all the circles the present writer has visited, he has only failed in three cases to find a distinct and special reference to some point between N. and E. which does not exist with regard to any other point of the compass, and in these cases it was reasonable from other causes to suppose that the outlying stones had been broken up.

Here it may be thought are coincidences enough, but if it still be said that Stonehenge is radically different to the Roll-Rich, or Dance Maen, we have only to remove in imagination the circles of trilithons (which are like nothing that exists in any other circle, are thought to be of comparatively recent erection, and may indeed *possibly* have been erected by Aurelius Ambrosius), and we get a double circle of comparatively insignificant stones, with outlyers almost exactly resembling the Cornish and other examples.

In India, however, at the present time, circles even more insignificant than Dance Maen, are erected and sacrifices are offered in them, one stone being set back to the east*—not to the N.E. because the sun rises but slightly N. of E. in India at any time. It is to be regretted that we know but little of the origin of these circles—perhaps those who now build them could scarcely enlighten us; at all events, we have here again the remarkable coincidence of the outlying stone towards the rising sun, and coupled, too, with sacrificial observances. This coincidence is easily explicable on the solar temple theory, but is entirely devoid of meaning on any other.

Nor do we fail to find connecting links between India and Britain. At Malta there is a building known as Hagiar Kim, supposed to be a Phœnician temple, and constructed of a cluster of irregular ovals, one of which, identified by Dr. Inman on other grounds as the “Holy of Holies,” has a north-easterly inclination and an opening at the end—possibly to admit the rays of the sun.† This coincidence tends to confirm the suspicion of a Phœnician influence in this matter; and the Indian practices of spotting the stones with red paint (blood) and anointing them may be compared with Leviticus, chapter 14. Dr. Fergusson indeed remarks that no dolmens and no monuments like Hagiar Kim are found in Phœnicia or any Phœnician colony; but this, if true now, does not prove that none ever existed, and is to some extent answered by his own statements that “the Greeks erected larger, and, in proportion to the

* Col. Forbes Leslie, “Early Races of Scotland.”

† “Ancient Temples in Malta,” by T. Inman, M.D., in *Anthropologia*, No. 1.

population, more numerous Doric temples in Sicily than they possessed in their own country, and the Northmen may have done the same thing in Orkney,” and that “we can count on our fingers all the fire temples that exist or were ever known to exist in fire-worshipping Persia, and if a dozen satisfied her spiritual wants, &c.,” sepulchral dolmens do moreover exist in Palestine.

Having shown a conclusive connecting link, and one which has nothing in common with Buddhism, between the various British circles—not to say between those of Britain and India—and some reasons for believing them to have been places of sacrifice, it is necessary to consider the objections which have been raised to the possibility of their having fulfilled that function.

1. The heathen temples which Augustine found in Britain were such as could easily be converted into churches, and could not have been mere circles of stones. These were Saxon, not British temples, and may have been originally British Christian churches, afterwards used by the Saxons as idol temples. 2. Avebury could not have been a temple, because it is too large, while the Roll-Rich is very small. Objections such as these are of little value, seeing that we do not know the exact nature of the ceremonies of the Druids. 3. Avebury has no sanctuary. 4. The stones of the inner circles at Avebury would conceal what was going on inside them. No. 4 seems to answer No. 3. 5. In India and in Egypt, where the climate is better than in England, all temples have roofs, and, as an English temple would be un-usable half the year without a roof, Avebury could not have been a temple; nor is the sun a likely object of worship in this climate. To this it may be replied that where the sun shows himself least, he is likely to be most valued; that sun worship, wherever practised, may have been brought from the East; that the difficulties of out-door worship or sacrifice in this country would probably be less formidable in practice than in theory; that the shelter of a roof is more necessary against the heat of Egypt or India than against even the cold of England, and that, nevertheless, sacrifices are at this day offered in India in uncovered circles of small stones. 6. Avebury, if a temple, would have grown up gradually, and we should have been able to trace its “progress.” For anything we can tell, it did so; there is no reason why one of the inner circles may not have been erected first, then the other, later on the outer circle, ditch, and vallum, and last of all the avenues. The same objection might be raised about St. Paul’s Cathedral, which is one in plan and style. 7. Had Avebury been a temple, the “savages” who erected it “must have brought one stone one year and another the next, and inevitably” (why inevitably?) “they would have employed their leisure hours, like the inhabitants of Easter Island, in carving these stones either with ornaments or symbols.” This after we have been told that “no mark of the chisel is to be seen on any of the stones now standing there, for their effect they depend wholly on their mass, and that is so great as to produce an impression of power and grandeur which few of the more elaborate works of man’s hands can rival;” perhaps the “savages”

took this view of the case themselves. The Jews also used unhewn stones for their altars, and if there were really a Phœnician influence in Britain, the connection in this particular is not difficult to see. 8. The circles could not have been temples, because burials were made in some, though not in all of them. "Except the Jews, who seem to have buried their kings close to" (not inside) "their temples, I do not know of any people in ancient or modern times who did so, and we certainly have no hint that the ancient Britons were an exception to this universal rule." Christians make this double use of their temples which no others did, but Christianity *as we have it* was first largely adopted in Western Europe, and was beyond doubt largely influenced by Druidism, hence there is reason to believe that this practice is derived from our Druidic forefathers; while the placing of our churches E. and W., or N. and S., follows in principle the orientation of the circles, which is at times followed even more closely, by placing the chancel so that the sun, while rising on the day of the saint to whom it is dedicated, shines through the eastern window.

Seeing then that no valid objections can be adduced against the sacrificial use of the circles, and that strong grounds for suspecting such a use do exist, we pass on to consider by whom and at what time they were erected. The present writer has stated his views on these points, and sees no reason to withdraw from them.

Dr. Fergusson, however, while admitting that "there is no direct evidence either way," points out that the Druids worshipped in groves, and are never connected by the classic authors with the rude stone monuments, which indeed are not mentioned by the latter at all, although Cæsar, and perhaps others, were at different times present in the localities where they now exist. He has, moreover, been at the pains to show us that the stone monuments exist for the most part in places where groves would never grow; but this, taken in connection with the fact, also mentioned by him, that the chambered tumuli of Orkney and Jutland resemble each other—except that in Orkney, where no wood grows, the chamber is composed of stone, and that in Jutland, where there is no stone, the chamber is formed of slabs of wood—and with the facts that some tribes in India erect wooden monuments of like form to the rude stone monuments erected by other Indian tribes, and that the Esquimaux erect trilithons of stone to attract the deer as trees would do if they happened to grow in their country, leads us to imagine that the Druids may have used groves where groves would grow, namely in the fertile places where the Romans first found and described them, and may have used stone circles and alignments in the less fertile parts of their country, or—which is perhaps most probable—the process may have been reversed, and wood may partly have replaced stone where woods were plentiful and stones were not.

Dr. Fergusson himself, moreover, gives an answer to his negative evidence by showing that Algeria had been visited and written

about by hundreds of travellers before the existence of rude stone monuments there was made known.

The stone circles, as Dr. Fergusson truly observes, are little known in France (where their place is perhaps supplied by alignments), and, though frequent in Algeria, Denmark, and Sweden, attained their greatest development in the British Isles. This agrees strangely with Cæsar's statement that Druidism was thought to have originated in Britain, and been carried thence to the continent, and that those who wished their sons to be well versed in it still sent them to Britain for the purpose. The absolute connection of the Algerian, Scandinavian, and even the Irish circles with those of Britain, through the reference to the rising sun by outlying stones or otherwise, has yet, however, to be established ; and, if the plates reproduced by Dr. Fergusson are correct, it seems probable that no such connection exists. But, as there are at this day in India circles which are used as places of sacrifice, and other circular arrangements of purely sepulchral monuments, there is no reason why a similar diversity may not have obtained in Europe.

Dr. Fergusson shows by decrees of various Councils from 452 to 692, A.D. (some of which are earlier than the stones themselves according to his theory), and by the curious relation which some churches bear to rude stone monuments (and he might have added to holy wells), that in Gaul especially these stones were reverentially regarded up to and beyond those dates ; and he argues that if they were so regarded then they were probably erected about the same time. This, however, does not follow ; as many heathenish symbols, practices, and even doctrines survive among us to this day, which nevertheless originated hundreds and even thousands of years ago. What the facts do show is a connection between the Celtic and Iberian populations (for the facts apply to both), or, in other words, between their priests, the Druids, and the monuments in question.

The very occasional discovery of Roman pottery, and even coins, in suspicious propinquity to a few of the rude stone monuments, will present a certain amount of difficulty to those who would relegate them all to “the misty haven of prehistoric antiquity,” (of whom the present writer is not one), but it must not be forgotten that by far the greater number of articles found in and about them (in Gaul and Britain) are of Celtic manufacture, varying from a very early period to one immediately preceding the Roman occupation, and that there is no evidence of this kind in favour of their Scandinavian origin. The conclusion from this must obviously be that these monuments (so far as Gaul and Britain are concerned) are substantially Celtic, Gaelic, and Iberian.

No such striking similarity has yet been discovered between the alignments (or lines of stones) in various countries as has herein been shown to exist between the circles. Some of them are evidently mere avenues leading to other monuments ; but the fact that sacrifices are offered in India before small lines of stones, leads to the inference that such may have been the case in Europe,

although the immense extent of the lines of Carnac offers a fair argument against it. Given, however, a single or double line of stones, in front of which sacrifices were offered, and a wealthy devotee anxious to beautify them, he might well place two or three more rows behind, and if he were of sufficient rank to "set the fashion" others might follow his example; of course the stones so added would be, *so far as we can judge*, utterly useless; but are all our own practices and fashions so founded on sense and economy that we are entitled to expect strictly logical proceedings from our forefathers? At Carnac, moreover, are found the remains of two circles in connexion with the lines, which latter run from them *in a north-easterly direction*, and it may be noted that most of the alignments seem, like the circles, to have a north-easterly bearing, while the true sepulchral dolmens generally have their opening between east and south, and run towards the north-west. Dr. Fergusson himself informs us that it is an ascertained fact that the alignments are not sepulchral.

Besides the few points which have already been mentioned, rather incidentally than otherwise, there is a mass of "cumulative" evidence, in the form of superstitions and usages (frequently connected with the rude stone monuments), tending to prove a common influence extending over various countries from Britain to India. What was that influence? A few points have already been mentioned as tending to show that it was to some extent Phœnician; the present writer, without committing himself unreservedly to that view, would remark that all the monuments in Europe, and perhaps in Africa also, between which any distinctive connection can be proved, exist within a moderate distance from the coast, and in places where a Celtic influence has been suspected, and sometimes absolutely traced, and that it was upon and perhaps through the Celts and Iberians that the Phœnician influence was brought to bear, if at all. Dr. Fergusson considers the connection between India and Britain to be Buddhist and post-Roman, but he will scarcely venture to say that Buddhist influence extended into Scandinavia, or even into Ireland, at so early a date as that of some of the remains which are found there. The superstitions and usages already referred to have moreover no connection with Buddhism, and existed in many of the places in question long before the date which he contemplates; and we are, therefore, carried back at least as far as the pre-Roman Celts and Iberians.

Omitting purposely many arguments in favour of the conclusions here arrived at, simply because they are disputed (though not abandoned), and their discussion would occupy too much space, we may state those conclusions thus:—

1. Dr. Fergusson's "Arthurian" and Buddhist theories are consistent neither in themselves, with each other, nor with the facts.
2. There is no good reason for supposing that the rude stone monuments in what are or have been Celtic countries were not constructed by the Celts at various dates before the Roman occupation.

3. There is much reason to believe that they were. 4. There is no good reason for declaring that the British circles in particular were not places of sacrifice primarily, and sepulchres, or it may be memorials, only secondarily. 5. There is much ground to believe that they were. 6. It does not, as Dr. Fergusson seems to imagine, necessarily follow that if the builders of the rude stone monuments used them for a purpose which he does not consider them fitted for, they must have "possessed the tails or at least the long pointed ears with which Darwin endows our ancestors."

The information at our command at present will not enable us to get much further than this, but that is not, as some people seem to imagine, a reason why we should not inquire into the subject, and, if possible, get more information, especially at the Indian end of the line, before it is too late.

DISCUSSION.

DR. CARTER BLAKE agreed with much of Mr. Lewis' argument. He was surprised to hear that the Irish possessed alphabetic writing in the third century B.C., and wondered what the characters were. It was true that the Peruvians did not possess wheeled vehicles, but what would have been their use with no native beast of draught? The llama could scarcely draw a carriage. The wheel itself was known to the Mexicans, and employed in machinery, both in the *trapiche* and *arrastra*. He was glad that Mr. Lewis had advocated the large amount of Celtic blood in the Scandinavians, some of the Jutland skulls (not necessarily identifiable with the Cimbri) being unmistakably Celtic in character. The great difficulty appeared to be, to associate the stone monuments with any particular race. Dr. Fergusson had been far more successful in his destructive than in his constructive arguments; for the builders of stone monuments occupied other areas than those of the Celts, the Teutons, or the so-called Iberians.

MR. J. JEREMIAH, junr., said:—He felt much pleasure in listening to the able attack of Mr. Lewis upon the very feeble hypothesis of Dr. Fergusson regarding the Arthurian age of Stonehenge and other megalithic monuments in Great Britain. What has always seemed absurd in the "Rude Stone Monuments," is the statement made by its learned author, that "Arthur had no contemporary history, and instead of living in a highly civilized state that continued for ages after him, he was the last brilliant light of his age and race, and after him all was gloom for centuries. It was not till after a long eclipse, that his name was seized upon in a poetical and an uncritical age as a peg for bards whereupon to hang their wild imaginings."

("R. S. Monuments," page 133.) Dr. Fergusson, apparently disregarding Walter de Mapes and Geoffrey of Monmouth, says of Arthur :—"Arthur, it seems to me, was born the prince of one of the smaller states in the West of England, probably Cornwall, and after the death of Ambrosius, in or about the year 508." ("R. S. Monuments," page 133). Surely some credence should be accorded to Geoffrey's statement that Walter, Archdeacon of Oxford, brought the account of Arthur "out of Brittany." Of course, such distant and inaccurate chroniclers as Gildas, Nennius, Geoffrey, and Caradoc, are to be treated with severity; and much pruning must be done before committing ourselves to one set of romances, out of the many that have like fungi grown upon the stock that at one time may have stood out in the glorious nakedness of truth. The reconciliation of the Breton origin with the British is the task of such writers as Dr. Fergusson, when we are called upon to specially favour one chronicler, when he is found by him to state certain things that comport themselves to foregone conclusions. Of the twelve battles that Dr. Fergusson, attempts to localize, that of Badon Hill is perhaps the most curious; for upon its correctness depends the whole of his case regarding the origin and age of Stonehenge. Now, no three learned archæologists agree regarding the locality of that hill or place. Gildas, who is the principal authority on this point, and who dates his birth from the year of the battle, says :—" *Usque ad annum Badonici Montis qui prope Sabrinum ostium habetur.*" (Gildas, xxvi. For the uncertainty of the chronology of Gildas, *vide* "Brut y Twysogion," preface, p. xv.) Nennius says the battle was fought in "*Monte Badonis.*" In Beda we have a servile copy of Gildas only. But in the *Annales Cambrie*, chapter lxiv., the writer attempts to fix the date in 516, and Dr. Guest thinks the year was 520. These morsels of information approach the supposed event within about five centuries; although Gildas is supposed to have been contemporary, and being so near the event is consequently *least exact*. Seeing how statements differ as to the date of the twelfth battle, I would crave the attention of the members of this society to the still more obscure settlement of the locality. Dr. Guest says it was at Badbury, in Dorset, where there is, by the way, a most interesting camp, composed of three rings and corresponding depressions. Mr. Skene thinks it was not far from Linlithgow on the Avon; the learned editors of the "*Monumenta Britannica*" contend it was at the place now known as Badesdonne or Bath. The anxious enquirer is here presented with three points of the compass, and if he succeeds in bringing them together, then archæologists must ever be thankful. The arguments are thus shown to be nothing but "wild imaginings." The age of Stonehenge, despite Dr. Fergusson's attempt to fix it, is as far from absolute settlement, as it was before he came upon the scene; and the same may be said of Avebury. Not content with putting forth his hypothesis of the Arthurian relationship of Stonehenge, Avebury, and other places in England, and proving to his own satisfaction, the *recent* origin of those

monuments, Dr. Fergusson trenches upon Scotch ground, and gives me one more opportunity of contradicting him. He says of the Stennis group (*Loc. cit.*, pp. 257—258) :—

“All parts of the Stennis group show design and power.”

“It seems evident that the circles and the barrows belong to two different peoples.”

“If so, the barrows belong to the Peti and Pape; the large howes, and the stone monuments to the Northmen.”

“If this is so, the latter belong to the two centuries comprised between 800 and 1,000 A.D.”

“Maes-Howe, being unique, must have belonged to the shortest but most magnificent dynasty in the Island.”

“With regard to Havard. He was killed on, or close to the spot where Maes-Howe now stands.”

* * * * *

“The name Havard's Steigr, attaching to the place at the present day is important.”

Had he the opportunity of studying the preface to the “Orkneyinga Saga,” by Mr. J. Anderson, he would most certainly have been more chary in thus venturing upon such hypotheses as these.

The evidence of the inscription in Runic found in Maes Howe shows manifestly that the Norsemen “were ignorant of the origin of the tumulus, which they knew only as the Orka-haug, or ‘mighty howe,’”—*Ork: Saga*, pp. cv., cviii. The structure is Celtic, and not Scandinavian. The statement of its being commemorative of Earl Havard, is therefore against all reason. Stennis, again, affords no hook whereon Dr. Fergusson may hang his hypothesis. True it is called in the Saga of Olaf, Tryggvi's son, “Havard's teigr,” but as the latter word means an individual's share or allotment of the tún, or town-land, it seems reasonable to suppose that Havard was simply buried by *inhumation*, rather than that there was a tumulus raised over him, else the erection or mound would have been called *Havard's Howe*. However, none of the Sagas mention the erection of Steins-ness, or of any of the megalithic monuments in that part. The names, also, were evidently in existence before the Norse invasion.

Not wishing to trespass further upon the time of the meeting, I would beg a few moments to say a word or two upon the Druids, seeing that Mr. Lewis has expressed his opinion upon their relationship to Britain. Firstly. Cæsar's account is rendered rather vague by the interpolation of “*græcis*,” with reference to the supposed use of Greek characters by the Druids. The Druids in Gaul were, as far as reliable history will help us, not in commerce, in *pre*-Roman times at least, with the Greeks, nor with Greek colonies, nor with Greek-speaking people. With Cæsar's vagueness, and that of the following copyists, as Pliny, Strabo, Pomponius Mela, and others, we come to Hecatæus of Abdera, quoted by Diodorus Siculus, who merely mentions a circular temple dedicated to Apollo, situated in an island as large as Sicily, over against Gaul, peopled by the *Hyperboreans*; this temple was governed by the *Boreads*, the descendants of *Boreas*. Well, if *Boreads* can be explained as meaning

"Druids," then philology is at an end. I shall not now stay to investigate this point. Further, if the circular temple is supposed to refer to Stonehenge, why not to a circular temple long since decayed? I must dissent from the views in the paper just read, that the want of agreement between groves and recesses, and the bleak and woodless expanse of the country around Stonehenge, is accounted for by saying that the Latin writers *were not always correct*. Why in some passages should vagueness be alleged and not in others equally vague? There is much more I would like to say, especially in regard to the Rev. L. Gidley's work on "Stonehenge," and his views upon the Druids; but I must conclude, and in so doing, warn archæologists that to build upon the unstable foundations of legends and inconsistent histories, and interpolations and hypotheses dogmatic and devoid of facts, is a poor task indeed; rather consign the florid glare of romance to the limbo of the forgotten past, and apply ourselves to the analytical study of facts, regardless of the opposed front of poetical antiquarians.

The PRESIDENT did not think there was any reason to doubt that such a person as Arthur had existed. The Arthur of history was a very different person from the Arthur of romance, the Arthur of the monks. We might as well doubt of the Crusades, because of the "*Gerusalemme Liberata*" of Tasso. Arthur's life and exploits are described with great simplicity by Nennius. He appears to have been buried at Avalon (Glastonbury), and Giraldus Cambrensis was present when the grave was opened by command of Henry II., and a Latin inscription on his tomb, mentioning his name, had been seen by Leland. He, the President, was of opinion that the rude stone monuments in question are not only prior to Arthur, but even prior to the Christian era. They are to be met with in all the four quarters of the globe, and are doubtless the work of the primitive peoples of the countries in which they are found. In Europe they might be partly of Scandinavian origin; but they are chiefly found in districts occupied by Celtic peoples, and they were doubtless built by them. Nearly all the terms used to designate the different stone monuments are derived from the Celtic languages: thus *carnedd*, *carnac*, *gorseddau*, signify heaps of stones; *galgal*, a tumulus; *peluen* or *pilven*, pillar stone; *menhir*, long stone; *cromlech*, bent or reclining stone; *cistvaen*, stone chest; *dolmen*, table stone; *tolmen*, stone with a hole. It was of course quite possible that such designations might be of modern origin, but if the erections were ancient the designations were probably ancient also. The objection to the stone circles having been used for Druidical worship was that Latin writers spoke of the Druids as worshipping in groves and recesses, but Latin writers were not always correct in what they stated. It was said also that none of the classical writers had mentioned these monuments. Diodorus Siculus, on the authority of Hecateus, speaks of a round temple in Britain, dedicated to Apollo, which is thought by some to have referred to Stonehenge. The name Arthur is probably not of Celtic origin. It may come from *Ἀρκτοῦρος*.

MR. LEWIS, having read the following note :—" Mr. Fergusson is obliged by Mr. Lewis' attention in inviting him to be present at the meeting of the London Anthropological Society on the 6th proximo, but regrets that it will not be in his power to avail himself of the invitation. 20, Langham Place, 19th December, 1873"—said that he was perhaps more disposed to believe in King Arthur than his friend Mr. Jeremiah. He thought it very likely that Geoffrey of Monmouth had in truth got hold of some book from Brittany, half history and half romance, and that his "history" was, as he asserted, a translation from such a book ; but if the book came from Brittany it did not necessarily follow that Arthur lived in that country, although he was said to have conquered it. In reference to letters, Mr. Lewis was not aware that there was any reason for believing that the word "Greek" in Cæsar was an interpolation, but, if it were, the "letters" remained unimpeached, and that sufficiently answered his purpose. Mr. Jeremiah appeared, moreover, to have forgotten the existence of the Greek colony at Marseilles. He (Mr. Lewis) had not alluded to the island and temple of Hecatæus because it was held by some that the island in question was not Britain at all. His own opinion was that the temple in question was Avebury, but it was by no means necessary that the Boreadæ, a term which comprised all the inhabitants of the island, should be identified with the Druids, who were only a part of them. As regarded other points raised by the gentlemen who had done him the honour to make remarks upon his paper, he must ask them to read it carefully when in print, as he thought they would find many of their objections answered in anticipation.

The Honorary Secretary then read the following paper :—

THE ALLEGED DISCOVERY OF A PHŒNICIAN INSCRIPTION IN BRAZIL.

NEARLY two years ago the Director of the Instituto Historico-Geographico do Brazil received a letter, posted in Rio, and signed by one Joaquim Alves da Costa, stating that on his "sitio de Pouso-Alto nas Margens do Parahiba" (there are two rivers of this name, and many places scattered about this country are known as "Pouso-Alto," high perch), his slaves had found, while seeking building materials, an inscribed stone, so large and heavy that they broke it into four pieces for convenience of transport. The son of this Costa, noticing the inscription on one of the pieces, and conceiving that it might be of scientific interest, re-joined the fragments and sent a copy of the whole to the Director of the aforementioned Institute, who, being ignorant of Oriental languages, formally handed it over to Dr. Ladisláo Netto, Director of the Brazilian National

Museum, whose knowledge of Hebrew made it possible for him to decypher it (for they were agreed that the writing was Phœnician). The latter gentleman, after having inserted two letters, which he supposes were left out either by the copyist or by the original sculptor, translates the eight lines, which are written very neatly, the letters being about half an inch high, as follows :—

"[This] stone was erected [by the] Canaanites of Sidon who from the royal city (or city of refuge) for commerce departed without me (?) from the distant high and arid land beloved by the gods and goddesses, in the eighteenth year of Hiram powerful king, and departed from Aziongaber on the Red Sea, and carried people in ten ships, and [they] went together by sea two years round the land of Egypt, and [they] separated from the chief and detached themselves from [their] companions, and arrived twice ten men and three women on this unknown shore, which I, servant of powerful Astarte, took in the name of the gods and goddesses ; may they have pity on me !"

To verify this result he sent some of the most difficult passages to M. Renan and other Oriental scholars in Europe ; and, as their renderings tally with his own, he considers that he has translated the whole correctly. He has delayed publishing copies of this inscription, as he desires to possess the original stone, that there may be no doubt about its genuineness ; but though he has employed agents to search along the banks of both the Parahibas, and has advertised in all the local as well as the Rio papers, he can find out nothing about Costa. He supposes, therefore, that the finder of this relic has reserved his knowledge of its position until he should learn whether it was of any value, when he would come forward and demand a large reward for its production. The only consideration which militates against this view is the length of time which has elapsed since the Director began to advertise for this Costa. He (the Director) says, however, that should he not publish lithographs of the copy of the inscription within two months, he will give me a hand-copy, which will be faithfully transmitted to the London Anthropological Society.

TRANSLATION No. I.

By DR. NETTO OF RIO DE JANEIRO.

נח אבן כנענים עדנים ה־קרת ה־ה... מלך סחרה שלך
sortirent à commerce roi (du?) cité (quide) la Sidoniens les Canaaniens (cette) pierre Ont dressé
(cité royale)

לא אנאירחקת ארץ הרם ונשת בחר ל־עליונים
Dieux des choisie aride et montagneuse terre l'éloigné (par?) moi sans

ורעליונו(ו)ת בשנת תשעת ורעשרת ל־חרם מלכנא אבר
puissant notre roi Hiram de dixième et neuvième l'année dans Décèsses et
(dix et neuvième)

ונהלך מעצון-גבר ב־ים־סף וננסעם אנית עשרת ו נהיה
sont restés et dix en navires le peuple levèrent et la mer rouge dans Aziongaber de partirent et

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בִּים יַחַדוּ שְׁתֵּם שָׁנִים סָבִב לְאַרְץ לַחַם וְנִבְדַּל מִיִּרְבָּצַר
 élevé chef du furent séparés et l'Egypte de la terre de autour deux années ensemble mer en
 (commandant)

וְלֹא־נָה אֶת חֲבֵרְנָא וְנִבָּא הֵלֶם שָׁנִים עָסַר מֵתָם וְשִׁלְשֵׁת
 trois et hommes dix deux fois ici sont arrivés et (ses) compagnons de s'éloignèrent et
 (douze)

נָשָׁם ב־אֵי חֶרֶת אֲשֶׁר אֲנִי מֵתַעֲשׂ(ת)רַת אֲבֵר חֲבִלְתִּיא
 ai prise malheureux Metuastarte moi qui inconnue (cette) côte dans femmes
 (puissante serviteur d'Astarte)

עֲלִיּוֹנִים וְעֲלִיּוֹנוֹת יַחֲנֵנָא

aient pitié de moi les Déesces et Que les Dieux

Ont erigé cette pierre (monument de pierre) les Canaanien Si-
 donien qui sont partis pour spéculation commerciale (colonisation)
 de la ville du roi, sans moi, à travers le pays éloigné et montagneux
 et aride, préféré des dieux et déesses, dans l'année 19^{me} de Hiram notre
 roi puissant; et partirent d'Aziongaber, dans la mer rouge, et embar-
 querent les colons en 10 navires, et sont restés tous ensemble deux ans,
 autour du continent africain, et furent séparés (après) du commandant
 de la flotte, et se sont éloignés de leur compagnons, et sont arrivés ici
 12 hommes et 3 femmes dans cette côte inconnue, qui moi Metu-astarte
 malheureux (serviteur d'Astarte puissante) j'ai prise Que les
 dieux et les déesses aient pitié de moi.

TRANSLATION No. II.

By E. RICHMOND HODGES, Esq., F.L.A.S., of LONDON.

נַחֲנָּ אֲבוֹ כְּנַעֲנִים צִדְנִים הִקְרַת הַמֶּלֶךְ סִחְרָה שָׁלוֹ : לֹא אֲנִי
 יִזְרַחְקָת אֶרֶץ הָרִם וְנִשְׁתַּבַּח(ב) לְעֲלִיּוֹנִים וְעֲלִיּוֹנֹת בְּשָׁנֹת תְּשַׁעַת
 וְעֶשְׂרֵת לְחָרִם מִלְּפָנָא אֲבֵר וְנִדְלָךְ מַעְצוֹן־גִּבֵּר בִּים סָף וְיִנְסַע
 עִם אֲנִית עֶשְׂרֵת וְנִהְיָה בִּים יַחַדוּ שְׁתֵּם שָׁנִים סָבִב לְאַרְץ
 לַחַם וְנִבְדַּל מִיִּרְבָּעַל וְלֹא נִהְיָתַחֲבֵרְנָא וְנִבָּא הֵלֶם שָׁנִים עָסַר
 מֵתָם וְשִׁלְשֵׁת נָשָׁם בְּאֵי חֶרֶת אֲשֶׁר : אֲנִי מֵתַעֲשׂ(ת)רַת אֲבֵר
 חֲבִלְתִּיא : עֲלִיּוֹנִים וְעֲלִיּוֹנֹת יַחֲנֵנָא :

Translation.

"We (*who this*) stone (have erected) are Canaanites, Sidonians of
 the royal city, the prosperous or secure emporium. We are not natives
 of the land of Rome; and we praise the gods and goddesses. In the
 9th and 10th years of Hiran, our mighty king, then we went from
 Ezon Geber (*i.e. Ezion-geber*) in the Red Sea, and we departed with
 ten ships, and we were in the sea of Yakhbo two years, going round
 the land of Ham; and we departed from Jerba'al, and we did not

take shelter, and we came here, twelve men and three women, without loss of a man. I am Methu-Astarte, chief of the sailors. The gods and goddesses be gracious to us.

TRANSLATION NO. III.

REV. PROFESSOR PRAG, OF LIVERPOOL.

Communicated by T. INMAN, ESQ., M.D., V.P.L.A.S.

I commence from the left hand side on account of the English meanings given after the words I shall be able to decipher.

נְחָנָא *Nehana*, Noun proper. בֶּן *son of, or native of.* כְּנַעַן *Canaan.* מִצִּידוֹ *from Zidon.* מִהַקְרָת *from the city* (one of the Semitic expressions for עִיר, city, is קִרְתָּא). הַמֶּלֶךְ *of the king* (the letter ל is perhaps omitted). סַחְרָה *the commerce.* שְׁלָךְ *of thine, or of hers* (the two words סַחְרָה שְׁלָךְ together mean *thy commerce*). לֵאמָנָא This is no Hebrew word; the Phœnician may perhaps be 𐤀𐤋𐤍𐤏𐤋 Hebrew לעולם *for ever*). יוֹרָח *shall shine, or flourish.* קַת* (no Hebrew; perhaps אַתָּה *thou*). אֶרֶצָה *land.* רָם *high.* וְנִשָּׂא (instead of וְנִשְׂאָה) and *exalted.* בָּחַר *chosen.* לְעִלְיוֹנִם *to the highest.* וְעִלְיוֹנֹת (perhaps וְעִלְיוֹנִם) *of the high* (Gods and Goddesses).

בִּשְׁנַת *in the year.* תִּשְׁעָת (probably תִּשְׁעָה) *nine.* וְעֶשְׂרֵת *and ten* (nineteen). לְהָרָם *of the destruction.* מִלְכָּנָא *of our King* (the termination of this word is Chaldaic, the Hebrew being מַלְכֵּנוּ).

אֶבֶר or אֲבֵר (evidently a Noun proper). כִּנָּה *he had prepared.* לוֹ *for himself.* מוֹעֲצוֹל (this is no Hebrew term; may be some technical name). גָּבַר *conquered.* בִּים *in the sea.* סָפוֹן *a master of a ship.* נָסַע *who journeyed.* עִם *with.* אֲנִית *ships.* עֶשְׂרֵת *ten.* כִּנְהִיָּה *when we were.* בִּים *in the sea.* יַחְדוֹ *together.* שְׁתֵּם (for שְׁתֵּימִם) *two.* שָׁנִים (for שְׁנֵימִים) *years.* סָבִב *round about.* לְאַרְץ *the land.* לְחָם or נָחַם (perhaps) *warm* (from חֶם *heat*). וְנִבְדָּל *and separated* (peculiar, strange). מֵי רַב *mighty waters.* עָלִי *went up.* לְאַנְיָה (for לְאַנְיָה) *into the (a) ship.* אֶת *with.* חֲבֵרְנָא *our company* (again the Chaldaic termination). וְנִבָּא *and we came.* הֵלֵם *hither.* שְׁנִים (for שְׁנֵימִים) *two.* עָסַר (for עֶשְׂרִי) *ten=twelve=* מֵתִים *men, males*

* קַת an obsol. root, meaning to serve, to support.

(Deut. ii. 34; iii. 6; there in both places also י defect). וּשְׁלֶשֶׁת *and three*. נָשִׁים *women*. בְּאִי *in the island*. חֲדָתָא (Chaldaic, Hebrew חֲדָשָׁה) *new*. Here are evidently some words omitted. שְׁאֲנִי (I cannot make sense of this word; as it stands it would mean *which I*). נָת *died*. עֶשְׂרֵת *ten*. אָבָר *were lost; perished*. חֲבֻלְתָּא (again a word beyond my knowledge. חָבַל denotes to wound, to apportion; perhaps, praise to אֱלֹהִים God). עֲלִיּוֹנָה *the highest* (masculine). וְעֲלִיּוֹנָה *and highest* (feminine). (These two words occur also at the end of the second and the beginning of the third line). יְחָנָנָה *God be gracious!* (This word may also be a noun proper, and the same as the first נְחֻנָּה).

I shall now try to put the words together:—

Nehana, the son of Canaan, from Zidon, the royal city, the commerce of which shall flourish. . . . The land high and exalted, chosen to be the highest of the high.

In the nineteenth year of the destruction of the king Abad (or Abar) he (perhaps the mentioned Nehana) prepared for himself a and conquered in the sea a captain, navigating (journeying) with ten ships; and in the sea together two years, surrounding a land warm and separated.— went up into a ship with the company and came hither twelve men and three women into the new island died, ten were lost to the highest of the high.

יְחָנָנָה *Jehanenah, God be gracious.*

P.S. I must, however, observe that the first word נְחֻנָּה *Nahana*, can as well mean "*We*" as the name of a person. In this case the second word must not be read בֶּן *son of*, but בְּנֵי *sons of*, with the omission of the final י (the modern spelling of which is בְּנֵי). We find these omissions also on the Moabite stone. The translation of the first sentence would thus be, *We, the sons of Canaan of the Zidonians*.

I must further remark that the first word in the fifth line has now become intelligent to me; it must doubtlessly be read וְנִהְיָה *when we were*. The translation would accordingly run thus:

When we were in the sea together two years, surrounding a land warm and separated (strange, unknown), we entered a ship with our company and came hither, twelve men and three women.

I am not quite sceptical as to the antiquity of the inscription. From the mode of the spelling and from certain words seldom found in modern writings, I can judge that it may be contemporary with the Pentateuch (Deuteronomy) or the Book of Job.

DISCUSSION.*

MR. G. ST. CLAIR said that many of the characters were undoubtedly Phœnician, and that fact would suffice to prove a connection between Brazil and Phœnicia, if the inscription was proved to be authentic. The proved connection of two such distant peoples might be of more consequence than the contents of the inscription, and would be independent of varying translations; but the first question was, Is the inscription authentic?

DR. CARTER BLAKE would call attention to a few of the important differences which existed between the versions of Senhor Netto and Mr. Hodges, one of whom must certainly be wrong.

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|---|--|
| 1. Qui sont partis pour especulation commerciale (colonisation). | 1. The prosperous and secure emporium. |
| 2. A travers le pays éloigné et montagneux et aride. | 2. We are not natives of the land of Rome. |
| 3. Préféré. | 3. We praise. |
| 4. L'année 19me. | 4. In the 9th and 10th years. |
| 5. Et sont restés tous ensemble. | 5. We were in the land of Yakhbo. |
| 6. Furent séparés (après) du commandant de la flotte et se sont éloignés de leurs compagnons. | 6. And we departed from Jerbaal, and did not take shelter. |
| 7. Dans ce côte inconnue. | 7. Without loss of a man. |
| 8. Omitted. | 8. Chief of the sailors. |

With a view to obtain a third opinion, he had sent a copy of the inscription to M. Julius Oppert, at Paris. Even if any person could believe that the Phœnicians had ever been in Brazil, which was of course sufficiently improbable, the fact was clear that no observer, not even Senhor Netto, had seen the original stone, the discovery of which, if it existed, would place the whole matter in a more satisfactory light.

MR. A. L. LEWIS said that the non-appearance of the original inscription was no doubt calculated to cast much doubt upon the whole matter, but in the outlying settlements of a country like Brazil many circumstances might prevent the original from being produced. Some of the celebrated Paston letters had, he believed, been mislaid, and their existence doubted, but afterwards proved by their re-discovery. It was not impossible, or even improbable, that a Phœnician vessel might have doubled the Cape of Good Hope (as witness the account given by Herodotus), and been carried across to Brazil by the current, which it seemed ran strongly in that direction; and the Phœnician vessels were probably as large, as seaworthy, and as well handled, as those of Columbus and other American voyagers.

* The foregoing translations were not all presented or discussed at this meeting, but are inserted here for the sake of brevity and convenience.

DR. BEKE remarked that in the existing uncertainty as to the correct interpretation of the inscription, it was impossible to form any satisfactory opinion respecting it; but the alleged co-existence of the "Rumi," that is to say, the Romans, or Greeks of the earlier Roman Empire and Hiram, king of Tyre, would involve an unsurmountable anachronism. So, too, it was not very intelligible how the Tyrians and Phœnicians should have reached Brazil by way of the Red Sea. It was desirable to know what were the precise expressions that have been rendered "Red Sea," and "Egypt."

MR. CHARLES HAMILTON, MR. PYCROFT, and MR. JEREMIAH Laving made some remarks,

MR. E. R. HODGES said: On comparing now, for the first time, the translation of Dr. Netto with my own, I find that while in the main the translations agree as to the principal facts and events, yet, in some of the details, there are evident discrepancies. To these divergences I now direct my attention. Both translators agree in describing those who set up the stone as Canaanites of Sidon, which city is described by one, (Dr. Netto), as a royal city, or city of refuge. My translation makes it a royal city, or city of the king. Dr. Netto says the voyage was undertaken for commerce. My translation makes שִׁחָרָה for סְחָרָה, an adjective qualifying the feminine noun, *city*, and I render it *emporium*; literally it means *she who traffics*. For נִשְׁלָךְ, which Dr. Netto renders *they went forth*, I read נִשְׁלִי, which I translate *safe, secure*, and I regard it as another adjective qualifying the noun *city*, or *emporium*. אֲנִי I take to be written אֲנִי, the singular *I* for the plural *we*, as might well be done by an illiterate person. Hence, with the negative לֹא preceding it, I render it, *we are not*, while Dr. Netto renders the clause, *without me*, which is inconsistent with the inscription itself, since it is evident that the writer of the inscription, Methu-Astarte, was *not* left behind, or he could not have set up the stone where found. We now come to an important discrepancy. Dr. Netto makes the clause last considered the termination of the preceding one; I regard it as the commencement of the following one, and render it, *We are not natives of the land of Rome*, where יִרְחֻקוֹת = אֲזֻרְהִים, the plural of אֲזֻרָה *indigena*, Levit. xvi. 29, where in Hebrew the prefix to the root is א, while in the Phœnician it is י; in Hebrew it is masculine, but in this inscription it appears with the feminine plural termination, and in the text before us a ק is inserted. אֲרִץ is *land*, both agree in that; but whether הָרִם should be pointed with a *kholem* so as to sound *rōm*, or whether, pointing it with *kamets*, we should read it *rām*=*high*, can only be decided by the context. In an unpointed text, as this is, one is as correct and as probable as the other. I point and read it *Rome*; Dr. Netto points and reads it *high*. If my reading of יִרְחֻקוֹת be accepted, *Rome* will suit the context better than any

other. שֶׁבַח is *to praise*, in Hebrew, Chaldec, Syriac and Arabic, and no doubt it had the same meaning in Phœnician. It never means, *to love*; I cannot see, therefore, how Dr. Netto's rendering, *from the distant, high, and arid land, beloved of the gods and goddesses*, is to stand. The next clause is בִּשְׁנַת תְּשַׁעַת וְעֶשְׂרֵת, which I render, *in the 9th and 10th years of Hiram*; but I cannot conceive where Dr. Netto gets his 19th year of Hiram from. As to the word בִּשְׁנַת, it may be pointed to read in the plural, *in the years*, or, with a patach, בִּשְׁנַת, *in the year of*; but I prefer to read it years, to agree with the numerals 9 and 10 as I read them. *We departed with ten ships*, Dr. Netto makes *we carried people in ten ships*. The word נָסַע signifies *castra movit, discessit, abiit*. עַם may be read as the preposition 'IM, *with*, as I take it, or as the noun 'AM, *people*, as Dr. Netto takes it. It is purely a question of pointing, and one is as likely to be right as the other, the context only can decide. יַחְבּוֹ is my reading, and is the name of the sea in which they remained for two years. Dr. Netto reads with a ך, while I read a ב, and in the copy which is supplied to me it is evidently a ב. If it be a ך, then Dr. Netto's reading of *together* will have some support, but even then the word should be יַחַד, not יַחְדוֹ with a ו at the end, for which there is not, that I remember, any example. *Going round the land of Ham*, Dr. Netto gives as *the land of Egypt*, where he translates Ham into *Egypt*, while I retain the original expression, Ham. *They separated* I render by *we departed*; for וַיִּבְדְּלוּ can never mean *they separated* or *departed*, but must be *we*, as the prefix ו is the prefix of the first person plural, not of the third person plural. Dr. Netto's rendering of this clause, *they separated from the chief*, cannot stand. Jerbaal is not a chief, but must be the proper name of some locality, where, of course, we cannot say; I render the clause, *We departed from Jerbaal*. In the next clause Dr. Netto has confounded ב with ך. By reading ך, he gets a root whence is derived *companion*; but I read it חָבַב, to hide oneself, to take refuge or shelter. In the following passage I give the force of הֵלֶם *here*, which Dr. Netto has entirely omitted. שְׁנֵים עָסָר is twelve (as in Exod. xxiv. 4), not twice ten, as Dr. Netto has given. אֲבֵר חַבְלֵי is chief of the sailors; for חַבֵּל, *a sailor*, see Jonah i. 6. I believe I have now compared the two translations fairly together, and pointed out their divergences. A competent Semitic scholar only can decide the points in dispute; as to the external evidence in favour of, or against, the inscription, I have nothing to say; time alone can clear up this difficulty; as to Hiram and the foundation of Rome, I would suggest there may have been several Hirams.

THE PRESIDENT said, although very improbable, it was not impossible that the Phœnicians had reached the American continent. They traded to Cornwall for tin, to the coast of Prussia for amber,

and from the Gulf of Akaba (the eastern arm of the Red Sea) to Ophir, which is said to have been at the mouth of the Indus (a three years' journey there and back); and they, or at all events the Carthaginians, are reported to have explored the west coast of Africa as far at least as Senegal; and to have planted colonies on the coast en route. Indeed, according to Herodotus, the Phœnicians, under the auspices of Pharaoh Nechos, starting from the Red Sea, circumnavigated Africa, and returned to the Mediterranean and Egypt through the Pillars of Hercules, i. e. the Straits of Gibraltar. Ten ships, however (which must have been row-boats), and fifteen people was a curious state of things. Only three of these being females would seem to suggest that polyandry was in vogue among them. They started from Ezion-Geber, called by the Greeks, Berenice, a maritime city on the Ælanitic Gulf of the Red Sea. The land of Ham (*i. q.* Egyptian *Χημ*) of course meant "land of Egypt," but the term may also have been applied to the coast of Africa as far as the Cape of Good Hope. He (the President) thought that the Society was greatly indebted for the transliterations and translations to Dr. Netto, Mr. Prag, and Mr. E. R. Hodges; and especially to the latter, for having added the points. The translations differ somewhat, and sometimes one, sometimes the other, is most reliable; for instance, Mr. Hodges rendering of *eretz rom*, as "land of Rome," is not so reasonable as that of Dr. Netto, who translates it, "terre montagneuse." The words could hardly mean "land of Rome." Hiram lived at the time of Solomon, who died 975 B.C., whereas Rome was not founded till 753 B.C. Dr. Netto's rendering, "mountainous land," might agree with the name Yerba'al. It did not appear where that place was situated, but, although in Hebrew Yerba'al would translate "city of Baal," it would mean in Phœnician "high city." It might be noted that Jerubaal was the cognomen of one Gideon, the judge of the Israelites, but it does not appear to have been the name of any place. To make up the name Astarte, both translators have inserted a *t* (𐤓) after *s* (𐤑), but in inscriptions in which the name occurs at Sidon, Malta, and at Umm-el-awamid (found in Levy's *Phœnisches Wörterbuch*) the word appears written entire. The name Methu-Astarte does not occur in Phœnician, or at all events in Levy's work; but we have Methubaal, signifying "man of Baal," Mathmalkath, and Mathmelkarth, rendered respectively "maid of the Queen," i. e. of Astarte, and "maid of Melkarth;" and Gesenius gives, Carthaginian Methuastartus, "man or worshipper of Astarte." The characters of the Phœnician alphabet and that of the ancient Hebrew, as might be expected, resemble each other considerably, but the inscription agrees more with the former than with the latter. Many of the words given in the transliterations are not found in Levy, but inasmuch as the Phœnician language was a sister of the Hebrew, in deciphering inscriptions, &c., it is quite fair to introduce the latter language. Indeed, Bochart also resorts to the kindred Arabic and Syriac.

The following paper was then read:—

THE LANGUAGE OF THE AINO.

BY DR. CHARNOCK, F.S.A., Pres. Lond. Anthropol. Soc.

THE Aino occupy the Japanese island of Yeso, the S. and N.E. coast of the island of Tarakaï,* on the Asiatic coast; the Kurile islands, which are also inhabited by Kamtchadales,† and the southern extremity of the peninsula of Kamtchatka. According to some writers, the Aino also occupy the Asiatic coast, from the mouth of the Amur southward to the boundry line of Corea. Commander C. S. Forbes says that, in consequence of a long and sanguinary struggle with the Japanese about the end of the 14th century, the Aino have been gradually diminishing, until their present numbers are scarcely 50,000; and Capt. Blakiston puts them as low as 25,000 or 30,000. But both these statements would seem to apply to the Aino of Yeso; for Forbes says that after the struggle in question, the Japanese confined the Aino to Yeso. Siebold says:—"In the oldest historical times the Ainos or *Asuma Jebisu* inhabited the most northern part of the island of Nippon, viz., the present provinces of *Mutsu*, *Dewa*, and the N. of *Jetsigo*, then called *Jebisu no Kuni*, 'the land of the savages.' As late as the 7th century the *Jebisu* were spread over *Mutsu* and *Dewa* up to 38° N. lat.; and were in continual war with the Japanese. At the beginning of the 9th century, Nippon had already come under the domination of the *Mikados*; notwithstanding, however, the civilised population of the S. of Japan, spreading up to the north, carried on a continual struggle with that rude northern tribe, till they were at length subdued and amalgamated into one people, or else partly driven out, partly exterminated. Many who would not submit had passed over to Jezô, crossing the strait of Tsugar, which separates Nippon from that island, and united themselves there with their old compatriots. But in the 14th century the Ainos in the S. of the island were also reduced by the Japanese. The Ainos now inhabit Jezo and the Kurils, and the S. part of Krafsto along the W. coast up to 48° N. lat., and the E. coast to the *Bay of Patientie*." Those desirous of an acquaintance with the physique, habits, manners, and customs of the Aino, would do well to consult—(1) "The Eastern Shores of Volcano Bay, Yesso," by Commander C. S. Forbes, R.N., F.R.G.S.; (2) "A Journey Round the Island of Yezo," by Capt. T. Blakiston, R.A., F.R.G.S. (the first read before the Royal Geographical Society on 14th May, 1866; the latter on 12th February, 1872); (3) "A Description of the Skeleton of an Aino Woman and of Three Skulls of Men of the same Race," by J. Barnard Davis, M.D., F.R.G.S., printed in the third vol. of *Memoirs of the*

* It is also variously styled Saghalien Ula Khata (Rock of the Black River); Krafsto, i. e. Karafto or Karafuto; Oku Yeso, i. e. North Yeso. Langsdorff says it ought not to be called Sachalin (*sic*), because the inhabitants call it Tchoka.

† There are twenty-five islands, the principal of which are Itarup, Kunashir Paramushir, and Urup.

Anthropological Society of London ; (4) "Geographical and Ethnological Elucidations to the Discoveries of Maerten Gerrits Vries," by P. F. von Siebold, translated by F. M. Cowan. Amst. 8vo, 1859 ; (5) "N. Witzén, Noord-Aost Tartarye," deel 11, I. c. p. 57 ; (6) "The Ainos : Aborigines of Yezo," in Vol. II. No. 2., of Journal Anthropological Institute, 1872, by Commander H. C. St. John, R.N.* Nor do there lack works on the language of the Aino There are the Vocabularies and Dictionaries of Siebold, Langsdorff, Pfizmaier, Furet, Davidow, La Pérouse, Klaproth, Toknai, and Mo-siwo-gusa. But few of these however are well known ; some are inaccessible ; whilst others are out of print, or are only preserved in Memoirs of Foreign Societies. The Vocabulary of Klaproth contains only 99 words ; that of La Pérouse about 160. Siebold's has upwards of 400 words. The Dictionary of Davidow numbers, say, 2,000 words, among which are many repetitions. That of Mo-siwo-gusa, published in Japan, contains about 4,000. Klaproth divides his vocabulary into the following dialects : Aïnu of Kamtchatka ; Aïnu of the Kurile Islands ; Aïnu of Jesso ; Aïnu of the southern Coast of Tschoka (Sahalien) ; Aïnu of the North-East Point of Tschoka. The Dictionary of Davidow relates to West Yezo ; and Pfizmaier's is principally composed of the dialects of the East (perhaps also the South) of Yezo, and is compiled from the Dictionary of Mo-siwo-gusa. It contains about 4,000 words, but inasmuch as many of these are only different forms of the same word, the number may be reduced to 3,500 ; and of these perhaps 200 relate to geographical names, and names of different localities in the towns, &c. Even Pfizmaier's work is not complete, many ordinary words not being registered. The name of the people, which is variously written *Aïno*, *Aïnu*, *Aïnuh*, means "man." Klaproth says, "*Aïno*, *Aïnu*, signifies, in the language of all the people who belong to the Kurilian tribes 'man,' and is the name they give themselves.† The Kurilians in Kamtchatka call themselves *Aïnu* ; those in the Kurile islands and in the neighbourhood of the Amur, *Aïnuh* ; those at Jesso and Tschoka (Sahalien), *Aïno*. In the History of Japan they are called *Asuma Jebisu*, that is East Savages. The Aino language, although it has been perfected after the manner of the Japanese, and contains many Japanisms, and the pronunciation accords much with

* See also Rosny (L. Léon de), *Mœurs des Aïno, insulaires de Yéso et des Kouriles*. Par. 1857.

† Lieut. Swinton C. Holland says, "Some Japanese declare the word Aino to have originated in the word for dog '*ino*,' but there appears to be little authority for this. They also state that '*Yezo*,' the name of the island, is taken from the custom the Ainos have of bending the body when going before a high Japanese officer, especially the Aino interpreters, who lead the men for whom they are about to interpret by the hand, both having their bodies bent and advancing a step at a time, dragging one leg after the other. Their attitude so much resembled the shape of a shrimp's body, that they were called '*Yebi*,' shrimp, '*So*,' savage ; and *Yebiso* has since been corrupted to *Yezo*.' *Yebi* and *ino* are not found as Aino words in Pfizmaier's Vocabularium ; and the word *so* does not appear to signify 'savage.'

the Japanese,* must nevertheless be pronounced an original language, and stands isolated from all other languages of the N. E. of Asia.

The introduction of Buddhism contributed somewhat to corrupt the base of the Japanese language, and accordingly many Sanskrit words were introduced into it. It also contains many words from the Chinese. It is otherwise with the Aino.† A great many Japanese words, say 300, have however been introduced. Many of the words so derived in Pfizmaier are improbable, as they do not appear to have any connection with the Japanese. Many of the introduced words relate to art, science, and trade. Among these are some of the names for metals :—

<i>Aino.</i>		<i>Japanese.</i>		<i>English.</i>
Kongani	}	Ko-gane‡	}	gold
Konkani				
Ko-kane				
Shirogani	}	siro-kane	}	silver
Shirokane		shiro-kane		
Karakane§		kara-kane		
Akkane	}	aka-kane	}	copper
Kani, gani		aka-gane		
Kane, kani||		kane		
		kuro-gane		ore iron

The Aino has a native word, *kupka*, for iron ; and for copper, *fûre-kane* = red metal ; *furesju*, from *fûre*, red, &c. The Aino word for quicksilver is *shirokane-wakka* ; which would seem to mean silver water ; and *yai-kane* for tin ; perhaps from *yai*, false. The Japanese word is *siro-namari*. The Japanese *kane* is metal, money, gold ; *siro* or *shiro* is white ; *kuroi*, black (whence the Aino *kunni*, *kunne*, id) *Kuro-kane*, means black metal,¶ and *aka* is red. Among names for animals derived from the Japanese are :—

<i>Aino.</i>	<i>Japanese.</i>	<i>English.</i>
Rakko	rakko	sea-otter
Ôshe kamoi	ôkami	wolf
Meko	neko	cat
Sururun	tsuru	crane

Klaproth has however *orgiû*. The Aino has also native names for the rat, monkey, hare, chamois, dog, fox, hart, walrus, reindeer, musk, squirrel, fish-otter (*lutra vulgaris*), seal, wild swine, and Chinese pig. In Yezo one of the Aino words for the seal is *tukari* or *thukari*, and for their young, *retari*, *tukari* or *thukari* ; which the Kurils have

* A late traveller, Mr. A. G. Watson, says the Aino language is mellifluous.

† I doubt much whether the Aino has half a dozen Chinese words.

‡ Also *kane*, *kon*, *kin*. Conf. Chinese *kin*, Sanskrit *kanaka*.

§ Pfizmaier renders *karankani*, similor ; from Japanese *kara-kane*, literally, Chinese gold.

|| Compare the Loo-Choo *kani*, metal ; *akogani*, copper. The Japanese race extends to the isle of Sama-sana on the S.E. coast of Formosa, and the isles of Majico-sima, which lie between Loo-Choo and Formosa. The Loo-Choo islands lie S.E. of Japan.

¶ The word *kuroi* may be allied to Tatar *kara*, black, Sanskrit *kāla*.

corrupted to *retutkor*. I doubt if the Aino has borrowed any word for birds from the Japanese. We may compare some fish names :—

<i>Aino.</i>	<i>Japanese.</i>	<i>English.</i>
Shaba, sjoba	saba	mackerel
Kashiube	kasube	a fish so called
Sjunbi	sabi	tunny
Messika	me-zika (porpoise)	dried porpoise
Wonne	wani	shark

Both languages have a native name for whale. Indeed, the Aino has nineteen names for different species of whale, although the Japanese has only sixteen.* The Aino call both the gurnet and gold perch *fûre sepp*=red fish (*fûre*, red, and *sepp*.) The gold perch is called *ninijesepp*, but the meaning of the first part of the name is doubtful. The Japanese word for gold fish is *kingiyo*—from *kin*, gold, *giyo*, fish. Among many words derived from the Japanese are the following. It will seem that there is occasionally a slight difference in the orthography and meaning. There is also sometimes a difference in the pronunciation.

<i>Aino.</i>	<i>Japanese.</i>	<i>English.</i>
Nuburi, noburi	nobori (to ascend)†	hill
Kabu, kapu	kawa	a hide
Ssippiù, shippo		
Shipo (sipo)	siwo, siho‡	salt
Minogo, menoko	menoko	lady
Niwatori	niwatori	cock
Raku	rakko	beaver
Sendo	sen-dô	ship's captain
Teppo	teppô	gun
Size, tsise	iye	house
Kama	kama	frying-pan
Tsha	tsia	tea
Kambi	kami	paper
Iuunnu	inoru	to pray
Tama, tamba	tama	precious stone
Kamui, kamoi	kami	God
Menoko	menoko	wife, woman
Nomi	nomi (chisel)	a drill
Sheppa	seppa	sword hilt
Neko, nego	neko	cat
Tambakko	tabako	tobacco
Tambako		
Mame	mame (pea)	peas
Antuki	adjuki (bean)	beans
Tsha	cha, tsia	tea
Kushuri, Kushiri	kuszri	medicine
Buri	furi	kind, mode

* Siebold, on the authority of Toknai and other Japanese, gives the following names for whales, dolphins and cachalots, among the Aino: "*tawajuk* (Jap. *iruka*); *jukfunbe*; *kenefunbe*, red of skin; *nise funbe*, eats herrings; *iwakotoma funbe*, is large; *okina*, is very large; *moasjankur*, great; *sjasijangur*, great; *nokor*, has beards; *ithutsikere*, has a long nose; *fûrembe*, has red blubber; *oakansi*, a big belly; *asbekorû*, is like a large mackerel; *kuttare*, also called *otahoi*, eats herring; *okirike*; *isjobonbe*; *jaitesi*; *taneibe*; *thunai*." The orthography does not always agree with Pfizmaier, who also gives other names.

† The Aino has however other words for a hill. So has the Japanese.

‡ The Aino has a native word for salt, viz., *abi*.

<i>Aino.</i>	<i>Japanese.</i>	<i>English.</i>
Shake, sagi	sake	wine
Saramba	sara-ba	farewell
Ru	ro (road)	way
Tomar	tomari (a stopping place, to stop)	anchorage
Iwa	iwa (rock)	mountain-ridge
Membiro	me-biru	garlick
Yu-wa-u	yuw o, iwō	sulphur
Kasha	kasa	hat
Tura	tsura	row, line
Rosoku	rosoku	candle
Yakata	yakata	palace
Ita	uturu	a board
Ita, ida, ta	ita	wood
Eone, poné	hone	bones
Kasja	kasa	shed.
Mukkari, mukar	masakari	axe
Tshe	iye	house
Habo, habu, chabu	haha, fawa	mother
Tek, dek, tegi	te	hand
Ai	ja	arrow.
Toi, tui	tsutsi*	earth
Nisoro	sora	atmosphere
Ekururoko kunne, kunni kuroit		black

The Aino is said to have borrowed many words from the N. and S. W. of Asia; as from the languages of the Tungus and Samoyeds. The Abbé Migne says, "Le langage des Ainos a tant de rapports avec l'idiome des Samoyedes et avec les dialectes de plusieurs tribus du Caucase, qu'il y a toute raison de supposer entre ces différentes races une très proche parente." One might expect to find words from the Manchu and the Corean, especially from the contiguity of the island of Tarakai with the Asiatic coast. The Aino *nai*, a rivulet may compare with Corean *nâi*, a river; *kamui*, *kāmūi*, a bear, with Corean *kom* (Jap. *kuma*). If the following Manchu words are compared with the short list of Aino words hereafter given, the affinity between the two languages will appear to be very doubtful, thus:—*Yokhoron*, river; *niyalma*, man; *oforo*, nose; *biya*, moon; *bira*, *pira*, river; *eme*, *emye*, mother; *boo*, house; *shun*, sun; *muke*, water; *yasa*, eye. *Tamuk*, one of the Aino words for tobacco, seems to agree with the Samoyed *tamgu*.† According to La Pérouse, the Aino has *kahani* for a boat, which Malte-Brun compares with the Greenlandish and Americo-Russian *cayac*, Samoyed *cayouc*, Galibi *canoua*, Otaheitan *canoa*. *Ita*, the Japanese and Aino word for wood, seems to agree with the Yakut *tya*, forest; and the Aino *to*, *tô*, for lake, may be related to the Magyar *tó* (a word probably of Tatar origin); and also with the Tchuktchi *touot*, *touga*, a gulf of the sea. The Aino *tsip*, *zibi*, for a ship, has possibly been borrowed from the Dutch; the Japanese word is *fune*. The following brief

* Compare the Chinese *te*, Tchugasi *tchi*.

† In this short list only the derived words have been given. The Aino has sometimes more than one word to denote the same thing.

‡ The Mamelute dialect has borrowed *tabac*, and the Japanese *tabaco*, from one of the European languages.

list will give some idea of the Aino language. The different dialectical forms of the word have been given; and whenever Siebold's orthography varies from that of other writers, or other words occur in the latter author, the same have been noted by the letter S.

<i>Aino.</i>	<i>English.</i>
Be; hi; pi; pēh; waka, wakka (S. hakka; wachka).	water
Kuru; guru; yarube; ainū; ainūh; aino, uru (S. sisjam)	man
Matsi; mātshi; mati; maz; kamtshi; menoko; minoko	wife
Tombi; tshupp, tshup, *tshuppu; tshūpūh, tonotshu; tshukf-kamoi (S. bekere tsurp)	sun
Tombi; shuppu; tshūpūh; tshu; tshukf; antsikara-tshupp.	moon
Shi; tsik; shiki; shigi; keremante (S. siki).	eye
Kema; kima; kemā; kēhummā; uzkami; kamko; tsikiri; ure; ure-po.	foot
Te; te-ke, te-gi, tek; dēk; amoini; undi; kema-tiké.	hand
Otā; ota; oda (S. teke; teki)	sand
Undshi; abe, abi; api; āpēh (S. unszi).	fire
Ito; itū; itū; idu; eto; etu; etū; āhdūm; teueshi (S. ethū)	nose
Baru; paru; tshara, tsharo, tchar; zaro (S. tsjaro)	mouth
Ima; ima-ki; nina-ki; mak; umaki	tooth
Tsisi; tsishi; tshe; zisse; kee (S. tsise, zise); rikop; gutsha; kereru.	house
Sso; to; geschi (S. tō)	lake
Au; achu; auch; barumbi (S. be, barunbe)	tongue
Bits; bets; bez; pet; peth; piz; pez; mem (S. kaba)	river
Atui; adui; adūikā; ruru; rebe; re-be; repke.	sea
Kamui; kamoi	God
Antsikara	night
Tsepp; tsep	fish
Habo; habu; chabu; āpu; grūpitschimāt; tshokkara	mother
Bake; shaba; shapa; papóp; gpa; nanu	head
Ssampe; sāmpeh; shambi (S. sāmpeh, sjanbe)	heart
Kishara; kshara; kshara; ksar; gsāhr; toko (S. kisijara).	ear
Keda; notsi; notsi-u.	star
Kpūhu; poo, ōkai jēnō bompō (S. okkaihebo)	son
Kemu; kemi; kēhm; kem; kin; to.	blood
Oheri; matsi-bo; matsi-ne-bo; mat-ne-bo; kpómmatshi; mazpu; mauzenebu; matnēbōmpō (S. mātshihebo)	daughter
Tshirpu; tshika, tshikapū zkapf (S. tzkapf, tsikapp)	bird
Ni, ni-i, tsiri-ni-i; nii; nyh; appec.	tree
Ileta; hida; sheta; sheda.	doz
Atsha; hambi; hanbe, mitsi-ya	father
Noma	hair
Ōmu	leg
To; tō	day
Reira; rera; rera; tēra; te-ēra, tashiu; tashium.	wind
Regutsi; rekutsi	neck
Nugoka; koka-shaba; kokka-shaba; kokka-shap; kokka-ba.	knee
Tei-guru	a wood
Sittoke	arm
Kupka	iron
Aski-bits; ashiki-bette; pon-pe	finger
Shippo; shishpo	all
Shiuma; shioma	stone
Rap-rap; shambe; shan-bi	breast
Kimi-ta; kimoro	mountain

* Also moon and month.

The Aino is not a written language. In printing, the Japanese kana are made use of, which are read from right to left.* In Aino the general rules as to declension and conjugation agree with those of their northern, southern, and western neighbours, who write their languages syllabically; as the Manchus, Mongols, Tibetans, and Yakuts; and not figuratively, that is, in signs for words, as in Chinese. The following brief remarks are intended to show the grammatical construction of the Aino, and in what respect it agrees with or differs from the Japanese.

Aino words are seldom monosyllabic. The Japanese, on the other hand,—Siebold to the contrary,—has a great many words of only one syllable.† Many Aino words are used to denote quite different objects—thus, *kina* signifies a plant and thatch; *kini* is a needle and blood; *bi*, *be*, water, a thing, object; *pa*, signifies a year, and to find a cup, and is also used as a particle; *ne* is form, figure, somewhat, anything, a determinative particle; *poi*, to excavate, to select, an opening; *to* a pond, the day, female bosom, milk, two; *toi-tu*, a garden, a cultivated field, to till, plough, a wood-pigeon; *tsi*, horse-radish, to boil, to ripen, a conjunctive, particle; *tsiri*, a bird, especially a little bird, also broad; *ri*, a name, high, three, and a transitive and intensive particle; *ru*, a whetstone, great, strong, vehement, footsteps; *shiú*, a kettle, bitter, yellow. In both languages the nouns are without gender, and are much more frequently used in the singular than in the plural. In Japanese the plural is formed either by repetition of the word, the first letter of which is softened, or by the addition of a particle signifying all, much, or a great number. In Aino the noun does not change in the plural. The latter is usually formed by an affixed particle, but occasionally by doubling the noun—thus, *pas*, coal; *pas-pas* coals; *poo*, *po* or *bó*, son; plural, *bo-po* or *po-po*. Indeed *po-po* itself is sometimes used to form the plural; thus, *okkai*, man, husband, *menoko*, woman, wife; plural, *okkai-po-po*; *menoko-po-po*. In Aino, as in Manchu, Mongol, Tibetan, Uigur, Turkish, Chinese, and Japanese, the genitive precedes the nominative, to which it is joined. In Japanese and Tartar the adjective precedes the noun which it qualifies. It is the same in the Aino. In Japanese the comparative is formed by a particle equivalent to *from*, or the Latin *ex*. This is likewise the case in the Tartar languages, especially the Tibetan. In the Aino such particle is equivalent to *better than*. The superlative is formed by a prefixed particle, denoting *very*. In Japanese the superlative is formed by means of different particles, of which the most common are *it-tsi*, an extreme, *mokomo*, much, extremely, very; *zyô*, superior, first; *sai-zyô*, supreme. In Japanese the cardinal numbers 1 to 10, and the number 100 are root words; in Aino the numerals from 1 to 5, and 10 and 20 are root words; 6 to 9 are in some way mixed up with 10, probably by means of sub-

* The term *kana* is applied to the forty-six letters of the Japanese alphabet; so called from their having been borrowed from the Chinese.—*Hepburn*.

† Compare the Japanese *se*, cliff; *no*, field; *hi*, fire, sun; *yo*, night; *ki*, tree, wood, the spirit, yellow, &c.; *fa*, leaf; *mi*, fruit; *me* eye; *wo*, cock; *mi*, body.

traction ; the rest are compounded of an unit and 10 or 20. The highest root number is 20*. *Ni*, the plural of persons (from Japanese *nin*, man) is affixed to the root ; thus, *shue-ni*, one man ; *tâni*, two men ; *rê-ni*, three men. The compound numerals are united by particles signifying *and*, *again*, *more*, and *minus*. In Japanese, in order to form the numerals 11 to 19, both inclusive, the units *itsi*, *ni*, *san*, *si*, *go*, *rok*, *sitsi*, *futs*, *ko* are affixed to *zyô* (10). The numerals once, twice, &c., are formed by adding *tabi* to the Japanese numeral, or with its equivalent, *do*, combined with the Sinico-Japanese numeral. The ordinal numerals are formed by adding to the Sinico-Japanese numeral the particle *ban*, signifying literally "once" (*fois*). Both languages have personal pronouns to suit the rank of the person addressed. In the Aino the third person is a circumlocution. The possessive pronouns are formed by affixing the genitive termination ; and they always precede the noun to which they are joined. The active verb has three tenses, the present, past, and future. The tenses are formed by change of termination. In Japanese the present tense is formed by means of the termination *u* ; in Aino, with *an*, *ki*, *re*, or *u*. In Japanese the future is formed by prolongation of the present tense ; in the Aino by an affixed particle. In Japanese the passive verbs have three tenses, which are formed by a prolongation of the terminations. In the Aino they are auxiliary verbs. In the former language the indefinite is the same as the present of the indicative ; but in the Aino a particle resembling a pronoun is frequently used instead. The mood is formed by an affixed particle which governs it. In Japanese the negations are joined to the verb, and frequently occasion a change of construction ; in Aino the negations are not marked by a particle. The participles are formed in the same way in both languages. Auxiliaries are used in the conjugation of the verbs, and are conjugated like other verbs ; impersonal verbs are seldom employed, and for those used in German a circumlocution is necessary. In Japanese, as in Manchu, Mongol, Tibetan, Uigur, and Turkish, the prepositions are replaced by post positions ; and these, as well as the conjunctions indicative of aim and giving a reason, are, both in Japanese and Aino, placed at the end of the word to which they relate, without occasioning any change in them. The following vowel and consonantal changes are found in the different dialects of the Aino : *a* interchanges with *o* and *u* ; *e* with *i* ; *i* with *e*, *e-i* and *yu* ; *o* with *u* ; *oi* with *ui* ; *u* with *i* ; *b* with *p* ; *h* with *b* and *p* ; *k* with *g* ; *r* with *t* ; and *t* with *d*. In deriving words from the Japanese, the Aino have changed *f* to *p* ; *r* to *n* ; *k* to *g* ; and *s* to *sh* ; thus *sake*, wine, becomes *shake* ; *kiseru*, a tobacco pipe, *kisherî* ; *fakaru*, to measure, *pakari* ; *futa*, a cover, lid, *puda* ; *kuroi*, black, *kunni*, *kunne*, *noko*, a saw, *nogo*. *Ts* softens into *t*, thus, *tsura*

* According to Siebold, the numerals 1 to 8 are root words ; and in Yeso 100 would seem to be made up of 5 and 20, and 1,000 by 5, 10, 20. Klaproth says in the Kuril dialect 50 is rendered by three times 20, less 10 ; and 100 by 5 times 20 ; and, according to Klaproth's vocabulary, the latter would seem to be the case in the dialect of Sahalien and Yeso.

a row, becomes *tura*. There is also a tendency to infix *m*; thus *tabako* (tobacco), *tambako*; *me-biru*, garlick, *membiru*. The vowels are also liable to mutation. Some Aino words have, without doubt, arisen by means of onomatopœia, as *ruru*, the sea; *ha-u*, *ha-u-i*, *ha-u-e*, sound, voice; *kau-kau*, the hail. Others are formed on a curious principle: thus *kanna-kamui*, or *kanna-kamoi*, thunder; literally the upper or higher God; *kunne-tshupp*, the moon; literally the black or night sun; *kunne-reki*, an owl; literally black-bearded; *tambako-iku*, to smoke tobacco; literally to drink tobacco; *te-kon-kani*, *te-gon-gani*, a golden ring; literally a golden hand. The Aino look upon their name as indicative of excellence, and use it accordingly: thus, *aino-koru* signifies to esteem some one highly; literally to hold fast to an Aino; *aino-konoburu*, to love some one; literally to love an Aino; *uko-aino-buri-koru*, to be haughty or proud; literally to appear like an Aino; *aino-ikiri*, a livelihood; literally Aino seam (*aino-naht*); *aino-seseku* to become wrathful; literally to glow like an Aino.* The dialect of Yeso agrees most with that of the south coast of Tarakaï; that of Kamtschatka with the dialect of the Kuriles. There is often a considerable difference between the dialect of the north-east of Tarakaï and the other dialects. For dictionaries and vocabularies of the Aino, consult Langsdorff (Georg. Heinrich von), "Bemerkungen auf einer Reise um die Welt in den Jahren, 1803 bis 1807," 2 bde. Frankfurt am Mayn, 4° 1812, T.I.s. 300ff.; Davuidov (Denis Vasilevich), "Reise von St. Petersburg durch Siberien nach Amerika und zurück," Berlin, 8°, 1816; Galaup de la Pérouse (J.F.), "Voyage," Paris 8°, 1831 (ed. par Lesseps); Krusenstern (Adam Johann von), "Wörtersammlungen aus den Sprachen einiger Völker des östlichen Asiens und der Nord-west Küst von Amerika," St. Petersburg, 4° 1813; Klaproth (Julius), "Asia Polyglotta, Zweite Auflage (Sprachatlas)," 2 pts. Paris, 4°. 1831; Siebold, "Aardrijks en volkenkundige Toelichtingen tot de Ontdekkingen van Vries, 1643, in het Zeegebied van Japan . . . en over de Aino-Taal," Amst. 8°, 1858; Cowan's Translation of Von Siebold's Work before referred to; Aino Dictionary by Mogami Toknai, quoted by Von Siebold; Furet (L.) "Lettres sur l'Archipel Japonais et la Tartarie Orientale; suivi d'un Traité de Philosophie Japonaise et de Plusieurs Vocabulaires," 2° ed. Paris, 12°, 1860, † Pfizmaier (A.), "Vocabularium der Aino-sprache," Vienna, 4°, 1854.

* Pfizmaier gives also *aino-utare*, the Aino people; *aino-kuri*, a dwarf; *aino schescheku*, to be wrathful.

† Furet's Vocabularies of the dialects of Sakhalien or Karafto and Hakodadi differ considerably from the other dialects of the island of Yeso, the Kuriles, and of Karafto given by Klaproth in his "Asia Polyglotta," p. 304. The Vocabulary of Broughton also differs.

FIRST ANNIVERSARY MEETING.

Held at 37, Arundel Street, Strand, London, on Tuesday, 20th January, 1874.

DR. R. S. CHARNOCK, F.S.A., President, in the Chair.

The Honorary Secretary read the following

REPORT OF COUNCIL.

The London Anthropological Society may truly be said to represent a principle and a defeat.

The principle which it represents is that of affording a platform upon which anyone who has any views to propound upon any subject, which comes within the range of anthropology, may do so without fear or favour, and without regard to any question whether those views coincide with or differ from the ideas generally received upon the matter under consideration. The platform thus afforded being, however, freely offered to all, it follows that each must propound his own hypothesis on his own responsibility, and must be prepared to undergo the most searching criticism, and to defend himself as best he may.

The defeat which this Society represents is that which was inflicted upon the Fellows of the Anthropological Society of London, on the 21st January, 1873.

But if this Society represent a defeat, its Council feels that it also represents a yet more lasting victory.

The same evening, and before the Ethnological faction had had time to congratulate itself upon the unexpected ease with which its victory had been gained, this Society had been definitely organised by some of those who have now the pleasure of addressing you, through this Report. Since that time its numbers have increased to 85, in addition to honorary and corresponding Fellows and local secretaries.

Since its organization, one meeting has been held for business purposes, and eleven for reading papers. The attendance at these meetings, though not so large as the Council could have wished, compares favourably with that of many societies possessing a much larger body of constituents, and the discussions, always fairly sustained, have in many instances, added greatly to the interest and value of the papers.

At these meetings an inaugural address and 29 papers have been read or delivered by 15 authors, some of whom have deservedly attained the highest reputation in those branches of science to which they have specially devoted their attention, and who, with one exception only, are Fellows of this Society. As these communica-

tions are fresh in your memory, and will be published in full, with the discussions upon them, in the Proceedings of the Society, it is unnecessary to repeat their titles.

The first number of the Proceedings, together with reviews and scientific notices, has already been issued to the Fellows under the title of "Anthropologia, No. I.," and has been paid for. The second number is in the hands of the printer, and it is hoped that Nos. 3 and 4 at least, may be published during 1874. The Council, however, feels that this is a matter which the Fellows, and the Fellows only, have in their own hands. Each number of "Anthropologia" costs, with postage and other incidental expenses, about £40, and to enable the Society to publish it, as the Council earnestly desires, four times each year, and to pay its other expenses, an income of £200 per annum is necessary. Now, if each existing Fellow will only bring in, during the year 1874, two of his friends whom he can recommend as Fellows, the thing will be done at once, without expense to himself, and all will get good value for their subscriptions in the shape of publications. A few of the Fellows, to whom the best thanks of the Society are due, have already done more than this, but a great object can only be attained by the combined efforts of many. The Council, while anxious to avoid pestering its constituents for donations beyond the amount of their subscriptions, may nevertheless on this occasion state that a fund is open for the purpose of increasing the number of the publications of the Society, and that donations to it will be gladly received.

The Council has much pleasure in presenting the balance-sheet for the past year, from which it will be perceived that it has firmly adhered to the resolution adopted at the commencement of the Society, that no debt should be incurred.

The list of Fellows recommended by the Council as office-bearers for the year 1874, is in your hands for you to deal with as you please.

A few contributions, among which must be especially noted those by Dr. R. B. N. Walker, have been received during the year towards the future museum and library of the Society, and the Council hopes that the day is not far distant when a room, or rooms, may be occupied permanently and entirely by its museum, library, and meetings. The expenses attendant upon such a step can, however, only be met by an increase in the number of Fellows (to be accomplished in the manner already suggested).

In conclusion, the Council cannot avoid calling your attention to the favourable reception which the advent of this Society has met with at the hands of the press, and of suggesting the propriety of a special vote of thanks for the same.

On the motion of the PRESIDENT, seconded by DR. HARCOURT, the Report was unanimously adopted.

The TREASURER then read the following statement of receipts and expenditure :

STATEMENT OF RECEIPTS AND EXPENDITURE

To 31st December, 1873.

	£	s.	d.		£	s.	d.
Subscriptions Received for 1873	71	10	0	Printing Anthropologia, No. 1.	36	0	0
Subscriptions Received for 1874	2	0	0	General Printing and Stationery	13	17	5
Donations, Sale of Publications, &c.	4	19	1	Advertisements	4	17	6
				Hire of Rooms	5	15	6
				Assistance to Honorary Secretaries	2	11	6
				Postage (including Postage of Anthropologia)	7	13	11
				General Charges	0	12	7
				Publisher's Charges	0	6	5
				Cash in hands of Treasurer, Honorary Secretary, and Publishers	6	14	3
	<u>£78</u>	<u>9</u>	<u>1</u>		<u>£78</u>	<u>9</u>	<u>1</u>
Memorandum : — Subscriptions unpaid for 1873, £13.				Memorandum : — Liabilities incurred, but not yet due, say £10.			
				Audited.			
				(Signed) J. GOULD AVERY, 15/1/74.			

On the motion of the TREASURER, seconded by Mr. GOULD AVERY, the statement of receipts and expenditure was unanimously adopted.

The President declared the ballot open, and appointed Professor LEITNER, Ph.D., and Mr. GOULD AVERY, Scrutineers.

The rules as passed at the Meeting of eleventh March, 1873, were finally agreed to, with the exception that the maximum number of Vice-Presidents was raised to six, and the maximum number of ordinary Members of Council to sixteen.

THE PRESIDENT then delivered the following address :—

GENTLEMEN,

The present Society was inaugurated on the 22nd January, 1873, a date which I trust will always be looked back to with satisfaction, in connexion with Anthropology, and the cause of science and truth in England. From the very commencement of the Society, we received the congratulations of Dr. Broca, father of Anthropology in Europe, and the hearty co-operation of the French Anthropologists. The first ordinary Meeting of the Society was held on the 9th April last, when I had the honour of reading an address, in which, among other matters, I gave a short history of the Society and explained its aim and object. Since then twenty-nine papers have been read before us, and I think I may congratulate you on the subjects of such papers. Among those to which I can refer with especial satisfaction, are the following : “The Negroes of New Guinea,” by Mr. A. H. Kiel, an exhaustive paper on the Papuan

race ; on "Ancient Temples in Malta," by Dr. T Inman ; "The Kitchen-middens of São Paulo, Brazil," by Capt. R. Burton ; and on "Giants' Graves in Ireland," by Dr. Sinclair Holden. I think I may say that the object of all the papers that have been read before this Society has been the advancement of science and truth, and that we have never stifled any paper for the sake of respectability or popularity. If our Society cannot be carried on without concealing the truth and pandering to the public, let it be at once dissolved.

In October last we published the first number of our ANTHROPOLOGIA, and our second number is now in the Press.

During the last year several wild philological theories have been advanced. In a paper read before the Anthropological Institute on the "Egyptian Colony and Language," by Mr. H. Clarke, after referring to the statement of Herodotus that Sesostris had left a colony in the Caucasus, the author of the paper informed his hearers that no traces of such colony had been discovered until he had himself found resemblances between certain dialects in the Caucasus and those of Egypt and other parts of Africa, from which Sesostris might have taken auxiliaries. Mr. Clarke holds that the test of words is the best test when properly applied ; and he gives a list of words denoting the simple relations of life, parts of the body, &c., in the Coptic and the Caucasian dialect, "Ude." The asserted resemblances amount to about thirty-two.* Having compared these with the Ude dialect, I find only the following coincidences :—

<i>Ude.</i>	<i>Coptic.</i>	<i>English.</i>
Ishu	sa	man.
Shumak	shini	woman.
Pul	bal	eye.
Sha	sho	sand.
Shu	oushe	night.

It must be admitted that five such resemblances might be found in many other languages having no affinity with each other. I will not however deny that the above words have been borrowed from the Coptic, or at all events that both languages may have borrowed from a common source. In a paper, "On the Comparative Chronology of the Migrations of Man in America in relation to Comparative Philology," Mr. Clarke is of opinion that there is no exclusive or indigenous language, grammar, or culture in America ; but that its languages are connected with the languages of the Old World. He

* I have only just come across a copy of the Journal containing Mr. Clarke's paper in full (in which the number of words probably amounts to fifty or sixty), and I have nothing to retract. The only grammatical resemblances between the two languages would seem to be the following. In both the nouns have only one true case ; there is no comparative ; the superlative is formed similarly ; and the pronouns are used as infixes. Mr. Clarke seems to be in a fog about Egyptian. He talks of Egyptian, Memphitic, Coptic, Sahidic, and Bashmuric,—the fact being, that the three latter are the only dialects of the Egyptian, and that Coptic and Memphitic are one and the same. Again, the comparison of the dialects Wartashin and Nij is quite remote from the subject ; and is as absurd as it would be to compare the Welsh language with the Greek, in order to prove that the English language is derived from the Welsh.

infers that there was an original community of races and of civilization, but that the culture was arrested in its development by the migration of the advanced races, being stopped. Mr. Clarke goes on to say, "The great language of the South American plains (the Guarani), in roots and grammatical forms, agrees with the Abchass of the Caucasus, and thereby with the great Agaw group." We know that some of the languages of the New World are agglutinative, and have for that reason been compared with those of the Old World; but there is reason to suppose that most languages were originally agglutinative. It has been asserted that there is an affinity between the language spoken by the Othomi (who, according to Clavigero, inhabit the northern part of the Mexican Valley) and the Chinese. A comparison of the two languages would seem to show an affinity both in words and in grammar. No doubt some of the words of the North American languages have considerable affinity with those of the Tatar languages, but these words were probably introduced in modern times by way of Behring Straits. Until however some evidence is produced, the affinity between the Guarani or any of the American languages and the Abchass must be put down as purely imaginary. Martius does not agree with Vater (Mithridates), who uses the name Guarani for the total nationality of the Tupi. He divides Tupi into South Tupi, East Tupi, North Tupi, Central Tupi, and West Tupi; and he confines the name Guarani to the South Tupi, who really dwell outside the Empire of Brazil. Let us briefly examine the grammar and vocabulary of the Guarani and Abchass separately. In the Guarani, which is considered the richest of the languages of the South American aborigines, most of the words are monosyllabic. Polysyllabic words are usually compounds. The meaning is determined by pronunciation or accentuation, as *aba*, hair, *abà*, man; *amo*, distant, *âmô*, related; *a-pe*, little body, *â-pê*, bridle; *pîra*, fish, *pîrà*, bloody. According to Hervas, *a* is the initial letter of a great many words, and the next most frequent initials are *t*, *p*, *h*, *c*, *k* consecutively. In the declension, the nominative, accusative and vocative have the same termination. The genitive is formed by affixing *mbae* (thing); the dative by *upè*; the ablative by *gui*, *me*, or *repe*. The plural is made by adding *heta*. The adjective stands after the substantive, and receives the sign of the case. The comparative is formed by adding *be*, *gui*, or *hegui* to the compared objects. The pronouns are *che*, I; *ore*, or *nândê*, we; *nde*, those; *peê*, you. In both the singular and plural the pronoun of the third person is *co*, *au*, or *âng*. The pronouns are placed after the nouns; and before the verbs. The infinitive is the root of the verb. The present tense is formed by prefixing the personal pronoun; the imperfect by affixing *biâd*, or *bià*; the preterite by addition of *racò* (from *ra*, formerly), or *nacò* (from *na*, certain); the future by adding *ne*. The future is also sometimes formed with *aipotà*, I will, as *caru*, to eat; *acarupota*, or *checaru aipota*, I will eat. In the imperative *e* or *tere* is used to form the second person singular; *pe* or *tape*, for the plural; and for the third person, *ta*; all which are placed before

the verb. In order to form the optative and subjunctive respectively, *tamô* and *râmô* are placed after the personal forms of the present tense. With few exceptions, all the active verbs are constructed in the above manner. The passive verbs are formed by placing *i* (sometimes *h*) before, and *pîra*, after the root; and by adding the personal pronoun. The prepositions (properly, postpositions) are placed after the substantives.

Berga says:—"We possess but few traditions, and scarcely any historical notices to determine the identity of the past and present inhabitants of the district now known by the name of Abchasia. It is at present impossible to say whether the actual inhabitants are aborigines or immigrants. The Abchass call themselves *Absne*, and consider themselves for this reason, according to Eichwald (i. 311), as the descendants of the old Egyptians and Abessimans (Abyssinians); whilst according to the surmises of other scholars they are the descendants of Armenians. The genealogy is, on account of its contradictions, as incorrect as it is fabulous. According to Bronewsky, the Abchass are the same people that occur in Nestor's Chronicle under the name of *Obes*. It is certain that in the Middle Ages and among the Byzantines the Abchass were called *Αβαργοί*, who, according to the testimony of Constantine Porphyrogenetos (who wrote in 948), inhabited the N. shore of the Black Sea from Sychia to Soteriopolis. During the reign of Justinian, in 550, they accepted the Christian faith, came afterwards under the dominion of the Jingizkhans, and were, at the end of the 15th century, in the host of Temir Khan against Bajazet. This briefly is really all we know of the history at the Abchass. They are divided into the great and little Abasi. The former consists of five tribes, the latter of six tribes, and hence are called *Alti-kesek*, (i.e., the six tribes). No reliable accounts of the Abchass language can be gathered from the work of either Gûldenstaedt or Klaproth. Even Rosen could only communicate with the people by means of the Turkish language. Baron Uslar had better opportunities, having been in uninterrupted intercourse during six weeks with three of the natives, two of whom were acquainted with the Russian language."

The Abchass language—which is divided into two chief dialects, the Kush-Hasib (i.e., Ultramontane), and the *Alti-Kesek*—is a less perfect language than either the Suani or the Colchian, and still less so than the Georgian. It is distinguished by a great many consonants, which render it somewhat inharmonious. It has no doubt some words in common with, or perhaps borrowed from, the Circassian, Georgian, Armenian, Persian, Arabic, and Turkish; but the grammatical relation between the Abchass and the Circassian is very small. Klaproth says, "Les Abazes, en Russie, Abazintsy, se nomment eux-mêmes *Absné* . . . Ils paraissent avoir habité de toute antiquité la partie nord-ouest du Caucase . . . Leur langue, à l'exception de quelques mots Tcherkes, n'a aucune analogie avec les langues connues en Europe et en Asie . . . Tous les Abazes sont divisés en deux branches, la grande et la petite Abaza ou Awaza;" and he says further that the little Abaza is in Tatar called *Alti-kessek*, or the six parts. In the formation of words reduplication is frequent, and the repetition of the pronominal suffix is common. With the exception of a termination for the plural, the substantive has no inflexion. The only termination for the plural is *kua* (probably the Circassian *che*); as *azá*, hare; plural, *azák'ua*. The genitive is formed by prefixing the noun of the possessor before that of the thing possessed, as *wab-alë*, thy father's horse. The other cases can only be determined by the verb. Polysyllabic words are not necessarily compound

words. There is no great difference in the number of the words commencing with a particular initial letter. As in Circassian, the adjective stands before the substantive ; as *aba wa's*, old castle, from *aba's*, old. Strictly speaking, the adjective has no inflexion. The comparative is formed by adding *ackys*=instead ; *eihá*=more ; or *akara*=so much, after the adjective. According to Uslar, the pronouns play the chief part in the language. To this author belongs the discovery of a special form for the feminine, which had escaped previous enquirers. This information was important, as without it a description of the different verbal forms was impossible. The pronouns run thus : *sara*, I ; *uara*, fem. *bara*, those ; *ui*, he, fem. *lara* ; *hara*, we ; *sára*, you ; *ärt*, they. The infinitive, which usually ends in *ra*, is an abstract noun, and stands in but slight relation with the etymological part of the verb. According to Rosen, the indefinite present ends in *p* ; the definite present in *oit* or *ait* ; the definite preterite in *it* or *éit* ; the definite future in *s't* ; the imperfect in *an*. The optative is formed by adding *anda* after the verb, and the subjunctive takes *are'y*. There are no passive verbs. The personal pronouns are sometimes prefixed, sometimes affixed, and are represented by initial sounds, which in the singular are *s*, *u*, *b*, *i*, and *l* ; in the plural *h*, *s*, and *u*. The nouns become definite by means of the article, or rather by the demonstrative pronoun *a* ; thus : *ázá*, the house ; *a'pa*, the son ; and indefinite, by dropping the *a*, and affixing *k* ; thus : *z'ak*, a hare ; *p'ak*, a son. The pronouns are prefixed to the verbs as in Guarani. If now the two languages in question—the Guarani and the Abchass—be compared, it will appear that the only grammatical resemblances between them is the position of the adjectives and the prepositions ; a not very remarkable circumstance, when it is taken into account that there is scarcely any language which has not some two or three grammatical affinities with some other language. But let us look into the matter vocabularly, and see whether there is any resemblance between the words in the two languages. I give the following few examples, and may add, *ex uno disce omnes*.

Guarani.	Abchass.	English.
Yaci	mesè	moon
Pyra	pfis, arge (Uslar, p'sgz)	fish
Hy, yg	dse (Uslar, zy)	water
Ypó, pô	impe, inape	hand
Oitéra	buch, buko, du	mountain
Teçá, sersá	ulla, lai (eyes)	eye
Itá	icha, aicha	iron
Itá, júba	pchi, peche (Uslar, xi)	gold
Jepyába	m'cy	wood
Curassé	mara, marà	sun
Paraná	azdyu	river

Mr. Clarke having stated that the Guarani agrees with what he terms "the great Agaw group" (an Abyssinian dialect), it may be useful to compare the Guarani with the Agaw. I give only a few examples :—

<i>Altikesek dialect.</i>	<i>Abchass. Cuban dialect.</i>	<i>Agaw or Agow.</i>	<i>English.</i>
Antsba		ye dé ra	God
Ourak	jaba	eer	father
Anshohk	jan	ig ge na	mother
Spau	ippa	yekoor	son
Goo	agoo	gul-wa	man
Yekka	aka	our	head
Atoola	toola	ziv-va	earth
Marah		quo-rah	sun
Mays, mazia		erwah	moon

The same author, Mr. Clarke, after mentioning the affinities of the Ashantee (Asiánti) language with the Fantee (Fanti) and Drellana of West Africa, classifies them with the language of the Corea, North of China, and with the Chetmacho of North America, in the neighbourhood of the Cherokees and the Creeks. He says, also, "The numerals of Ashantee and Corea show correspondences, illustrating the wide diffusion and influence of the Corea-Ashantee language in pre-historic epochs. Although the races are not the same in blood, the culture is of the same origin. The Coreans, like the Ashantees, have established a large kingdom, and repulsed European forces."

The Asiánti is one of the many dialects of a widely-extended tongue, of which eight different specimens are given by Bowdich, who has added a vocabulary of the Fanti and Asiánti languages. No pronunciation, however, is given, which is somewhat unsatisfactory, as it is by means of the intonations that the words acquire different significations. Vocabularily, the Asiánti would seem to agree more or less with the Fanti, Ahanta, Akra, Adampî, Affüttû, Amanahea and Bûrûm languages, which are spoken from Amanahea to the Volta. It agrees much more with the Fanti than with the Bûrûm. The genius of the language however differs considerably from the Akra.* The spoken language is soft, not inharmonious, and very inartificial; but very poor in words. "The Ashantee," (says Bowdich,) "in comparison with the Fantee, Warsaw (Wossa), &c., &c., from its refinement of idiom—oratory being so much more cultivated—may be considered as the Attic amongst the dialects of the Greek; but it owes its superior euphony, striking to any ear, to the characteristic of the Ionic, an abundance of vowel sounds, and a rejection of aspirates." The consonants and vowels would appear to be about the same as those used in the European languages. I do not find the letters *v*, *x*, and *z*. The substantives are frequently composed of more than two syllables. The numerals, up to 10 agree to a great extent with those of the dialects of Inta Bûrûm, Aswin, and Amanahea, and more or less with those of many other neighbouring dialects. I possess no information on Asiánti grammar; but it is

* The Ashantee, Fantee, War-aw, Akim, Assin, and Aquapiim languages are indisputably dialects of the same root; their identity is even more striking than that of the dialects of the ancient Greeks.—*Bowdich*.

admitted that it is about the same with that of the Fanti, of which Protten wrote a short grammar.*

In the Fanti or Amina language the substantives and adjectives have no form or ending for the plural, except in a few words in which the plural is formed by changing the initial *a* into *e*; as *aboa*, a wild beast; *annoma*, a bird; plural *eboa*, *ennoma*; or by the addition of *num* (according to Protten, the pronoun *ejinum*, these, they); thus *enipa*, a bed, plural *enipanum*, *empanum*. The adjectives and prepositions stand after, and the pronominal adjectives before, the substantives. The comparative is expressed by addition of the object compared, the superlative by the comparison with all objects. There is only one conjugation, which has three moods; the indicative, imperative, and infinitive. The indicative has four tenses, the present, imperfect, preterite, and future; and, with the addition of an adverb, the pluperfect. The present and imperative are the radical sound, without the addition of the pronouns. Except in the imperfect and future, the root remains unchanged. In all the cases of the imperfect *ji* is affixed, and in those of the future *bæ* is prefixed. The pronoun precedes the verb, and is altered or abbreviated in some of the tenses, thus, *œ-o*, thou, takes the respective forms of *o-a*, *o-æ* and *a*; *aa-no*, he, becomes *aa*; and in the preterite *ra*; *jæng*, we, is shortened to *jæ* in all the tenses except the preterite, where it becomes *ja*; *humû*, you, is always written *hum*; and *vænni*, they, becomes *væ*, except in the preterite, when it takes the form of *vaa*. *Mi*, I, is also changed to *ma* in the preterite.

According to some, the Corean language is derived from the Mandshu; others say it is made up of Mandshu and Chinese. It has no doubt borrowed words from both languages, especially from the latter. Most names of dignities and public functions, many names of professions, trades, and those relating to natural history, instruments, and utensils, have been taken from the Chinese, and in the transfer have undergone but little alteration. Indeed, in the spoken language the people combine native words with Chinese words to express even the commonest things. The Corean has not many words from the Japanese. It has, however, a few striking grammatical affinities with the latter. The Corean alphabet has thirteen vowels and fourteen consonants, besides five others which are used for the transcription of foreign words. The substantives are for the most part composed of only one or two syllables. The adjectives undergo no alteration to express gender or number. There are no conjugations and no declensions; or rather the substantives are not capable of inflection. They are, so to say, declined by the addition of certain postpositions, which undergo no alteration when affixed. The plural of nouns is sometimes effected by reduplication, as in Japanese and in several other Oriental languages; and sometimes by adding a word indicating number; as *mourout*, all; *motour*,

* See "En nyttig Grammaticalsk Indledning til tvende hidindtil gandske ubekjendte Sprog, Fanteisk og Aeraisk (paa Guld-Kysten udi Guinea); efter den Danske Pronunciation og Udtale; by Christian Protten, Kiöbenh, 1764."

them, all, much ; *takäi*, all, together. The adjective, considered as a qualificative genitive, stands before the substantive to which it relates. The comparative is formed as in Japanese and in most of the Tatar languages, by affixing a particle or preposition to the ablative ; the superlative by the addition of certain particles signifying "extremely," "much." The prepositions are replaced by postpositions. In order to form the multiples of 10, the vocable *sip* (in Sinico-Corean, *yœr*), 10, is affixed to the units ; as 'i-*sip*, 20 ; 'o-*sip*, 50 ; but in adding to the tens, the units are affixed ; as *sam-sip'i*, 32. Above 10 however the Coreans use Chinese words. Finally, letters are frequently substituted or transposed for the sake of euphony. The following short list of common words will show the relationship, if any, between Asiánti and Corean :—

<i>Asiánti.</i>	<i>Corean.</i>	<i>English.</i>
Ogiäh	pour	fire
Bak	naï	river
Inshoo	mour	water
Eppoo	pata	sea
Binin	saräm	man
Anima	sai	bird
Panquaw	mâr	horse
Sikkä	soï	gold
Serranee	tar	moon
Ayowea	nâr	sun
Mna	oemi	mother
Enum	koki	fish
Gwettay	oun	silver
Cooqua	moi (mountain)	hill
Kussua	âr	egg
Aggáh	âpi	father

There is no radical or other connection between the numerals in the two languages. The Coreans make use of two series of numerals, one of which is derived from the Chinese. The following are the numerals up to 10, the Corean being given in the national idiom :—

<i>Asiánti.</i>	<i>Corean.</i>	<i>English.</i>
Akoom	'ir	1
Anoo	'i	2
Mensa	sam	3
Ennung	sä	4
Ennoom	'o	5
Ineëä	ryok	6
Inshoug	ts'ir	7
Woquee	p'ar	8
Oonkonnung	kou	9
Edoo	sip	10
Eddooän	'i-sip	20
Edoonoom	'o-sip	50

Mr. Clarke is not the sole philological discoverer in the year of grace 1873. Mr. Eugene Schuyler, an American, dating from Bokhara,* criticizing Mr. Vámbéry's *Travels* and his *Cagataische Sprachstudien*, has found out that there is no language bearing the name of Tchagatai. This statement is somewhat inexcusable, when we consider

* See *Athenæum*, Sept., 1873.

the true state of the case. The Tchagatai, or rather the Jagatái, which in ancient times resembled the Uigher (the base of the Osmanli-Turkish), has a valuable literature. In the first place, we have the Wáki'ati Báburí, an autobiography of Sultan Baber, conqueror of Hindústán, the original MS., of which is—or was formerly to my knowledge—in the library of the India House, London. This work was translated into English under the title "Memoirs of Zehir-ed-din Muhammad Baber, Emperor of Hindústán, written by himself," partly by the late Dr. John Leyden, and partly by W. Erskine, Esq., 4to, London, 1826. It has also been translated into Persian. Again, the celebrated "Genealogical History of the Turks," by Abú-l-ghází, was originally written in Jagatái. The first MS. of this work (which was written about 1663) known to Europeans, was discovered by some Swedish officers, who, after the battle of Pultawa, were sent as prisoners to Siberia. One of the latter translated it into French. It was re-translated into English, under the title "The Genealogical History of the Tatars," which forms the first volume of "A General History of the Turks, Moguls and Tatars," 2 vols. 8vo, London, 1730; and the text of Abú-l-ghází has been edited by Frähn (Khasan, 1825). One of the most curious monuments of the Jagatái is the Tuzkátí Tímúr, or Commentary of Timur; and there is the Melfúzát, or Memoirs of the same prince, which were translated into Persian by Abu Tahib Husseini, and into English by Major C. Stuart, 4to, 1830. It is indeed thought probable that Tímúr and his subjects were acquainted with no other language than Jagatái. Again, according to Vámbéry, Redhouse has made use of his (Vámbéry's) work in his Turkish Dictionary, and Prof. Budagoff of St. Petersburg has done the same in his comparative Tartar Dictionary.

The Rev. Isaac Taylor has discovered the true key to deciphering the Etruscan Inscriptions. He goes so far as to assert that he can decipher all of them.* We are told that the language is neither Italic nor Aryan, but North-Turanian, Altaic, and chiefly Finnic. Mr. Taylor also tells us that the customs, modes of burial, religious belief, forms of government, marriage laws, laws of inheritance, priesthood, and mythology of the Etruscans all point irresistibly to a Tataric origin; and that the Etruscan deities were the same as those of the Kalevala, the epic poem of the Finns. Having examined the works of Lanzi, Orioli, Dorow, Micali, Guarnacci, Campanarius, Raoul-Rochette, Creuzer, Doderlein, Lepsius, Passeri, Greuter, Maffei, Niebuhr, Bardetti, Grotefend, Inghirami, Fabretti, Müller, Pitiscus, Crawford, Bossi, Hesychius, Ellis, Dempster, Dennis, Welsford and others who have variously traced Etruscan to Greek, Latin, Teutonic, Anglo-Saxon, Runic, Gaulish, Basque, Illyrian, Arabic, Hebrew, Sanskrit, Armenian, Egyptian, and Chinese, I cannot say that Mr. Taylor's theory is any improvement on the theories of his predecessors. To endeavour to prove the so-called Turanian origin of the Etruscan language by comparing it with the Turkish is

* In a paper read before the Philological Society on 5th Dec., 1873.

absurd indeed, when it is taken into account that the latter language is compounded of Tatar, Arabic and Persian, and has even words from other languages. So much for the new philological theories.

Prof. Woldrich of Vienna, whilst visiting the locality where the Brüx skull was found, made some interesting excavations near the village of Pareydl, where he discovered what he considers to be Etruscan remains. On the first blush, considering the geographical area of the ancient Etrusci, it might seem unreasonable to expect that Etruscan remains could be found in Bohemia; but it is nevertheless within the bounds of probability. That the Etrusci were colonizers is a matter of history. Not only did they colonize Corsica, but they built cities there. Again, Livy was of opinion that the Rhœti were of Etruscan origin, although Niebuhr endeavoured to prove that Etruria was conquered by the Rhœti. Micali refers to the discovery of an Etruscan inscription at Trent, containing the name of the chief divinity of the Etrusci; and he cites names of Etruscan origin in the Grisons and the Tyrol, as Tuisis and Retzuns. But this is not at all; because we know that next to the Phœnicians, Carthaginians and Greeks, no people of antiquity were more successful in commerce than the Etrusci, and we ought not therefore to be astonished to find remains of these people out of the Etruscan area. These discoveries of Woldrich have been laid before the Vienna Society.

The last-named Anthropologist has also made some excavations at Pulkau in Lower Austria. These have led to the discovery of the remains of animals and of a great many objects dating back to an early Bronze epoch, when utensils of polished stone were still used. Prof. Woldrich is of opinion that the spot where the excavations in question were made was probably a place of sacrifice. It may be mentioned that Pulkau or Bülkau stands at the foot of the Mannhartsberg, a mountain chain, which, commencing on the frontiers of Moravia, stretches south-east through Lower Austria. Herr Wankel, who lately opened some ancient tombs in the environs of Raigern in Moravia, found in one of them the piled-up skeletons of a man, a woman, three children of different ages, and a young pig. The position of the skeletons, which were lying upon their faces, with the extremities turned upwards, would seem to show that the corpses must have been thrown into the tomb pell-mell. The man's head was separated from the trunk, and lay at some distance from the latter. Wankel considers that the remains represent a human sacrifice; that the man must have been decapitated, and that his wife, children, and cattle, who were killed in a different way, were thrown into the same ditch, with the *débris* of cups, which may have served at the sacrifice. He thinks this is confirmed by the discovery, at the side of the ditch, of a great table of gneiss, which must have been brought from a considerable distance, this sort of stone not being found in the immediate vicinity. It appears that the table has a hole bored through its centre, which Wankel thinks was probably for the purpose of allowing the liquid (perhaps blood) to flow, and that the table was a sacrificial one. At its side were found a stone hatchet,

well polished, and some vases in a good state of preservation. In the neighbourhood were also discovered more remains of skeletons, and the *débris* of certain animals ; as *Cervus elephas*, *Capreolus*, *Capra*, *Equus caballus*, *Sus scrofa*, *domestica* and *palustris*, *Bos trochoceros*,* *brachyceros* = *longifrons*. Several utensils, and some instruments of stone and of bone were also unearthed. No article in bronze was found, but the previous discovery of metallic objects hereabouts would seem to prove that all the remains belong to the Bronze period, say about the time of the commencement of the Christian era. As human sacrifices were especially practised by the Celts at about this period, Wankel thinks the *débris* in question may have appertained to a Celtic tribe. Herr J. Kadavy has also just discovered in the Mnich mountain near Rosenberg in Bohemia a ramified cavern about one hundred and fifty metres long. Here he found bones of mammiferæ, and many *débris* of pottery ; he had not however explored the end of all the galleries. This find has been laid before the Geological Institute of Austria. M. Ed. Piette lately made some excavations in the grotto of Gourdon, near Montrejean in the Haute Garonne, which have since been communicated to the Société Géologique de France by M. Gervais. M. Piette found a large quantity of human *débris*, associated with many bones, among which are those of the wolf, fox, lynx, ordinary bear, marten, hedgehog, hare, water rat, horse, wild boar, reindeer, stag, goat, wild goat, ox, chamois ; besides the bones of a great many birds. The most numerous are those of the reindeer. Most of the bones are split, and bear engraved designs, of which M. Piette has made a curious selection.

In March last two skulls from New Guinea, brought over by the officers of a Russian frigate, were presented to the Berlin Anthropological Society ; the one dolichocephalic and prognathous ; the other straight, taller, and less prognathous. The most remarkable feature of the two skulls is the very herbivorous character and prodigious development of the jaws. A doubt has been raised whether these skulls are those of Papuas or Alfueras. It would have been as well to ascertain from what part of the Island the skulls in question were procured, inasmuch as the Papuas and Alfueras occupy different districts. There is however another race in New Guinea, viz. the Malays, or perhaps now a cross between Malays and Papuas. It may be noted that of the three Papuan male skulls described by Dr. Barnard Davis in his *Thesaurus Craniorum*, one is dolichocephalic and prognathous, another unusually dolichocephalic and very prognathous, and the third (a female skull) dolichocephalic. Herman Almkvist reports that Prof. Sven Nilsson has once more, in a new edition of "The Age of Bronze" (*Bronsåldern*), asserted his theory of Phœnician colonists having settled in Scandinavia. I have not

* This seems to have been the second discovery of *Bos trochoceros* associated with man, the first having been made by my friend, Dr. Carter Blake (*Journ. Anth. Soc. Lond.* Dec., 1866). As his facts were at the time ignored by some modern *dilettanti* enquirers, he is no doubt gratified at Wankel's unintentional corroboration seven years afterwards.

examined the evidence, but if it be true that the Phœnicians sailed as far as the shores of Prussia to procure amber, the thing is not impossible.

The human remains found at Brûx near Seidlitz in Bohemia continue to occupy the attention of the Anthropologists of Vienna; but the latter do not appear to have arrived at any satisfactory result. The real question seems to be whether the Brûx cranium represents a pre-historic type, or whether it is merely the result of pathological conditions. Herr Félix Luschan, who has made a very complete examination of it, considers that its exaggerated dolichocephalism is due to a synostosis of the sagittal suture. In its principal characters this cranium reminds us of the Neanderthal skull, the only one in Southern Germany that can be compared with it in antiquity. Both present an extreme dolichocephalism; both exhibit an enormous development of the superciliary prominences and arches. Virchow has for a long time maintained that the Neanderthal cranium was a pathological cranium; that the development of the superciliary prominences is due to rachitic degeneration of the bones, and that the dolichocephalism is the result of synostosis. He has also recently demonstrated the lesions of rachitis, and those of the deforming arthritis upon several other bones of the same skeleton, and he has arrived at the conclusion that the Neanderthal skull is a pathological specimen, and is therefore incapable of being brought forward to prove race character. Luschan is of the same opinion with regard to the Brûx cranium. He thinks there are some proofs of this pathological state in the platymeric form of the tibiæ, which Broca and Busk consider as proof of a very inferior development. This disposition indeed (which consists in a particular flatness of the tibiæ, and in a considerable production of their *linea aspera*) is found among the apes, although in but a very slight degree. Luschan thinks if we could find in man a slight approach to the conformation of these animals, one might say, with Busk, that these men would have far outsimianized the Simiæ. Luschan has also other arguments in reserve. He says, everyone must admit how important it would be to compare the Brûx skull with ancient and modern skulls from the same locality. The skull in question does not present any conformation resembling that of other ancient crania found in the environs of Brûx, especially with one found at Seydowitz, a little town about two leagues from Brûx. Further, at the place where the cranium was found, at only a few feet above it, a hatchet of polished stone of the most beautiful workmanship has been discovered; and Luschan asks, Is it not therefore probable that the cranium was contemporaneous with the hatchet? And he thinks it might have been accidentally carried away into beds a little deeper; and he adds that those who undertake scientific excavations must be aware of numerous similar examples of this transposition in deposit. Woldrich is of a different opinion, and adduces proofs derived principally from a geological study of the soil. Having examined the locality, he states that the place where the cranium

was found is situated in the most ancient alluviums, viz., the *löss*; whilst the stone hatchet was derived from much more recent alluviums. Without absolutely denying the possibility (improbable as it may be) of a displacement of the cranium, through having been carried away in the deepest beds of a current of water or some other like circumstance, Woldrich does not believe in the latter hypothesis. If true, he thinks it would be impossible to account for the fact that among the thousands of crania of this remote epoch, the only two which we possess up to the present time are crania attacked with disease, a disease which has arrested their development, and modified their form in an identical manner; and he is of opinion that we must therefore admit that the synostosis of the sagittal suture, the dolichocephalism, and the arrest of development on which it depends, are a race character; and that all the neighbouring population at a certain epoch was afflicted with it. Woldrich thinks that the discovery of a third cranium of the same epoch, and presenting the same alterations and the same characters, would suffice to decide the question in the affirmative. It does not however appear that Woldrich has taken into consideration the enormous number of Neanderthaloid or Cannstadt crania which, derived from different localities, ancient and modern, all exhibit like physiognomy and similar synostosis. M. E. T. Hamy, who places this skull between that of the Neanderthal and those of Cannstadt and Eguisheim, says:—

“Tous, ils appartiennent à une seule et même race dont l'homme du Neanderthal est le type exagéré. Par ce rapprochement sont refutées les erreurs de toutes sortes antérieurement publiées à propos de ce crâne extraordinaire. Il est aujourd'hui bien certain que cet individu, ni les autres qui reproduisent, en les atténuant, ses formes céphaliques, n'étaient idiots, ni pathologiquement déformés, mais présentaient un ensemble de caractères ethniques que nous retrouvons sporadiquement sur des sujets modernes et actuels dans les mêmes contrées. La trouvaille de Brûx a, en outre, une grande importance ethnologique. En effet, elle nous détourne tout à fait des Celtes un peu fantastiques auxquels on a voulu rattacher nos fossiles, et elle nous entraîne à l'orient, vers ces terres mystérieuses encore de l'Inde, où la présence de pierres, taillées suivant les formes de la Somme ou de l'Ouse dans les terrains quarternaires de Madras, engageait déjà les préhistoriens à aller chercher les analogues des premiers hommes d'Abbeville, de Hoxne et de San Isidro.”

During the last year an important memoir has been published by Dr. Broca on the influence of education on the volume and size of the brain.* Parchappe, it is well known, made a comparison between the average volume of the head in ten hand-working men, and ten men of recognised talent; and he found that there was a certain and appreciable difference between them. Broca has always insisted on the great disparity of brain-mass between the educated and uneducated persons of any population whose general cranial capacity is of a certain well-known average. In the present memoir Dr. Broca has at great length entered into the principles of his system of craniometry, a system which is already familiar to English craniologists, and which has been universally adopted. He gives a series of

* See *Revue Scientifique*.

measurements in which the brain capacities of twenty male nurses from the lunatic hospital of Bicêtre are compared with those of eighteen patients of the same place. Looking simply at general results, it is clear that the patients have the most voluminous head. The education which they have received has functionized the different portions of their brains, and has been favourable to its development. This development has not been uniform. Intellectual work has, above all, brought into use the anterior lobes of the brain; and a comparison of the minute measurements shows that the frontal region has especially benefitted by the advantageous conditions of education. As regards the cephalic index, that of the nurses being often composed of the more ignorant or debased French, in which a proportion of Teuton blood may possibly be detected, closely approaches to $\cdot 81$, while that of the patients is a little lower. Parchappe's experiments had shown that his working men had an index of $76\cdot 76$, while the thinking classes investigated by him had an index of $76\cdot 10$. It was the common opinion that those possessing great intelligence and a very voluminous brain, have often a cephalic index superior to that of the average of their race; but the basilar cartilage, which may be comparable to the subepiphysial cartilage of the long bones, is the principal agent of the longitudinal increase of the base of the skull. This cartilage is ossified at eighteen or twenty years, when intellectual education commences to bear fruit. It will not therefore be surprising that the causes which favour the increase of the skull may be capable of retarding in some manner the ossification, and of facilitating the elongation of the skull. Dr. Broca thinks he can demonstrate (on good grounds, in my opinion) that the cultivation of the mind and intellectual work augment the volume of the brain, and that this increase is especially in the frontal lobes, which are the seat of the most elevated of the intelligent faculties. The author concludes by remarking that education does not merely make a man better. It not only produces in his favour that relative superiority which permits him to use all the intelligence with which nature has endowed him; it goes further; it has the marvellous power of rendering him superior to himself, of enlarging his brain, and of improving its form. He says those who demand that instruction should be given to all, have on their side both social and national interests. But we can also invoke a higher interest than either of these; the spread of instruction and amelioration of race. Society can effect this and has merely to desire it. Dr. Broca has evidently strong convictions of the improbability of the human race. But we must not forget that it is of French, not English, material that he is speaking. If a class exists in the highest or lowest society, whose aims are grovelling and immoral, the education of them will only bring us in face of a larger brain-weapon wherewith to injure society. We have only to look around us in England. The criminal classes generally have small brains. If stronger implements were given them for the exercise of their destructive trades, society must suffer. The extinction of all minds and bodies inimical to the well-being of the

State will be worked out by slow laws, *lento gradu ad vindictam divina procedit ira ; turditatem supplicii, gravitatem compensat.*

"Let the human race,
Move onward, working out the beast,
And let the ape and tiger die."

In a paper read by Dr. E. Cyon before the *Académie Médico-Chirurgicale de Saint Pétersbourg*, in November last, we find an interesting physiological point discussed—the connexion of the heart with the brain. The author remarks upon the unanimity with which poets of all ages and countries have invested the centre of circulation with the intellectual functions which give expression to the passions of mankind. He says we talk in common parlance of a good and bad heart ; we say of a man that he is warm or cold hearted ; we go with a heavy heart to hear of expected bad tidings ; a youth is light-hearted ; and so forth. The question therefore arises whether there is any physiological truth in all these expressions and poetical figures. Some forty years ago the great scientific discoveries daily proclaimed rather tended to throw the heart into the background, in so far as its moral influence was concerned, and only to recognise its supremacy as the lift-and-force pump by which the circulation of the blood is effected. Dr. Claude Bernard was the first to endeavour in 1864, to revive, on scientific grounds, the belief in cardiac influence on the intellectual faculties ; but he did not at that time possess the data which have since accrued to science. Dr. Cyon then describes branches of nerves more recently found, which establish a communication between the heart and the brain. The former has a nervous system, distinct from the central one, but connected with the pneumogastric one by which they go to the brain ; while others go from the latter to the centre by means of the ganglions of the great sympathetic. Such being the mechanism, he thinks it may be easily understood why, on receiving distressing news, the heart will sometimes beat with painful rapidity ; and why the pneumogastric branches which retard the pulsations are temporarily paralysed. In the case of joyful tidings,* the heart also beats fast, because the accelerating nerves are over-excited ; but as the others are not paralysed, the strokes diminish in intensity as they increase in number, and are therefore not painful, but pleasurable.

Professor Ferrier's experiments on the localization of the functions of the brain have been so much discussed, that I will here simply state the results of such experiments on the different ganglia : stimulation of the corpora striata causes the limbs to be flexed ; the optic thalamus produces no result ; the corpora quadrigemina produce, when the anterior tubercles are acted upon, an intense dilation of the pupil, and a tendency to draw back the head and extend the limbs as in apisthotonos ; while the stimulation of the posterior tubercles leads to the production of all kinds of noises. By stimulating the cerebellum various movements of the eye-balls are produced.

An important branch of Anthropology is the progress of the human race ; a subject which has to a great extent been overlooked by

students of our science. I propose to make only a few remarks. That mankind has diminished in bulk and stature there cannot be a doubt, although it is a question whether these are *per se* proofs of physical degeneration.* Mr Herbert Spencer proves that we are neither so well grown, nor so strong as our predecessors; that our children do not reach the stature of their parents; that we cannot bear so much bleeding; that premature baldness is far more common than it used to be; and that in the rising generation an early decay of the teeth occurs very frequently. "Men of past generations, living riotously, as they did, could bear more than the men of the present generation, who live soberly. Yet we who think much about our bodily welfare, who eat with moderation, and do not drink to excess; who attend to ventilation and use frequent ablutions; who make annual excursions, and have the greater medical knowledge—are continually breaking down under our work."†

In England, and in most parts of the globe occupied by the English people, athleticism continues to deal its deadly blows.

In Prussia the births decreased from 1834 to 1846, but increased in 1849. In Austria they have also increased. In England they have been increasing for many years. After several fluctuations, only a slight increase is shown in Hanover, Bavaria, Denmark, and Baden. The returns show a considerable diminution in the Sardinian States, and a less sensible one in Würtemberg and the Danish Duchies. The decrease was high in Holland, viz., almost ten per hundred in the period 1840-49; but as there was a decrease of marriages in the same country, that of births would of course be the natural consequence. In France there are only 2·55 births to every hundred inhabitants; in Prussia there are 3·84; in Russia the proportion is 5·07, or nearly double that of France.

During the present century there has been a considerable increase of the population of Europe. In 1821 the population of the United Kingdom, including Ireland, was 21,202,966; in the middle of 1873 it was 32,131,488. At a recent meeting of the Society of Political Economy of Lyons, M. Hurbin Lefevre read a paper in which he showed that there is a decrease of the population of France. In 1821 France numbered 30,480,000; in 1861, the population, reckoning, Nice and Savoy, which had been annexed—had increased to no more than 36,804,000. In forty years the increase had been only 6,344,000, or just about twenty per cent., and the average increase had been at the rate of 0·47 per cent. per annum. But between 1861

* According to a late medical report, the diminished bulk and stature of the population of both sexes in England is attributed to the use of tobacco, which is also alleged to be one of the causes of heart disease, insanity, and paralysis. On this subject I must refer to our contemporary the *Tobacco Plant*. Dr. E. D. Clarke ascribes the short size of the Alanders and the frequency of dwarfs in the northern countries of Europe to the custom of dram-drinking from youth. But there are other causes at work, viz., bad and insufficient food, hereditary syphilis, the transformation from an agricultural into a manufacturing people, and the increase of certain unhealthy occupations.

† In quoting the above, I do not admit that the men of the present time live soberly.

and 1866 the increase fell off even from this low rate, the annual average not exceeding 0·38 per cent. This rate is below that in any other European country, with the single exception of Ireland. In England and Prussia the annual average is as high as 1·26 per cent. ; in Spain it is 0·67 ; in Austro-Hungary, 0·63. In France the slow increase of 1866 has since been changed into an actual decrease. Not counting the loss due to the cession of Alsace and Lorraine, it was found by the census of 1871 that there were then 367,000 fewer inhabitants of France than in 1866. And, as a late writer observes, the fact that as many as 131,000 of these, or more than one-third, were females, would seem to show that the decrease is not altogether the result of the war. If this be so, and bearing in mind that the rate of increase has been steadily declining ever since the beginning of the century, the prospect before France, unless matters change, is really alarming. While her great enemy is rapidly multiplying her numbers, her own people are becoming fewer every year. Should the present rate of increase continue, the population of Prussia would be doubled in fifty-five years, while that of France, at the present rate of decrease, would be less than 3-4ths its present strength.

From a paper read before La Société d'Anthropologie de Paris, by M. Chavée (founded on the work of G. Von Düben,) there would appear to have been an increase in the population of Lapland during the last twenty years. Thus, without reckoning the Swedish Laplanders, the population, which in 1855 was only 5,685, and in 1860 reached 7,248, in 1870 still numbered 6,702. Again M. Bertillon, after stating that the statistics of Norway show a considerable increase in the births, says there is a general increase of population among the peoples of the North, which is thought likely to become still more marked. On the other hand, recent statistics of the United States show a sensible decrease of inhabitants as regards American subjects, properly so called. There is also a gradual decrease of the Saxons of Transylvania. In the time of the Austrian sovereignty, the Hungarian population increased yearly at the rate of 1·2 per cent. by the excess of births over deaths. There is now a very considerable decrease yearly. The urban population of Italy is stationary. In Russia 1-5th of the Samoyeds have died within the last ten years. The tribes of Cashmere, the native population of America, Australia, and the Sandwich Islands is dying out fast. The Parsees of India are decreasing in number. In Van Diemen's Land not a solitary native inhabitant is left.* Capt. J. C. Johnstone, who has passed many years in New Zealand, wishes, before it is too late, to render his testimony "to the truth, honour, generosity, hospitality, and virtue, which distinguished the inhabitants of Maoria before the advent of the Pakeha. Now, thousands have dwindled down to hundreds, hundreds to tens, and the Maori of to-day is too often a drunkard, a liar, a thief, and a perjurer. . . . Yet another generation, and the fair plains of New Zealand will have seen the last of the Maori."

* Assam is being gradually depopulated, but from what cause I know not.

Statistics do not enable us to arrive at any certain conclusion as to the number of those born deaf and dumb, and those born blind. According to De Watteville, there are in France more deaf and dumb in the departments where the German race predominates, and fewer where the Norman race prevails. Special information from those acquainted with the subject would seem to prove that the number of born-blind has decreased since the introduction of vaccination.

In France, from 1840-45 to 1845-49, there was a trifling increase of still-born children in the towns, but a very notable decrease in the country. There was also an increase in Prussia, Hanover, Bavaria, the Danish Duchies, Denmark, and Belgium. The average number of still-born births for twelve European states is 444 ; 6 in 10,000 births ; the lowest is in the Sardinian States ; the highest in Holland. There are fewer still-born children in the countries in which there are the most marriages, and as a consequence there are fewer natural births ; and Legoyt says there is always found a much greater number of still-born children among illegitimate, than among legitimate births ; and he thinks it may be laid down that if the precise number of still-born children could be ascertained, after allowing for accidental circumstances or special and local causes, there would in every country be a constant relation between the number of illegitimate births and those of still-born.

There cannot be a doubt that illegitimate births are on the increase in Europe. It is proved by the statistics for Austria, France, Hanover, Prussia, Bavaria, Denmark, Holland, and Belgium. M. A. Legoyt remarks :—

“La question de moralité écartée, nous ne saurions méconnaître que le fait d'un grand nombre et surtout d'un nombre croissant d'enfants naturels a les conséquences sociales et économiques les plus regrettables. D'abord la mortalité est plus considérable parmi les enfants naturels, aux premiers âges, que parmi les enfants légitimes. La différence est de 63 pour 100 en Prusse ; de 56 pour 100 en Suède. Cette mortalité exceptionnelle les atteint jusque dans le sein de leur mère, puisqu'ils fournissent plus de mort-nés que les autres. Il n'y a guère, en outre, que les filles mères qui commettent le crime d'avortement et d'infanticide, crime dont le chiffre suit une funestre progression, et que la justice humaine est impuissante à reprimer. Quant à la destinée des enfants naturels qui ont échappé à la mortalité des premiers âges, il est facile de s'en faire une idée. Sans liens de famille, le plus souvent sans moyens d'existences assurés, et sans l'instruction qui peut y suppléer, presque tous privés de cette éducation morale qui ne se donne que dans la famille, ils sont le triste jouet de leur passions, et viennent en grande partie peupler nos prisons. Il serait donc utile de rechercher s'il ne serait pas possible, d'arrêter, par des mesures législatives sagement combinées, l'accroissement des naissances naturelles.”

Another important question is the increase or decrease of European marriages. On this, however, the official documents are not conclusive. In France, the relation of marriages to the population oscillated between 1 in 127 in the period 1831-35, 1 in 124 in 1836-40, 1 in 121 in 1841-5, and 1 in 128 in 1846-50. Inasmuch as the years 1848 and 1850 must be considered exceptional, in consequence of the influence of political events for the first year, and of cholera for the second, there is reason to think that the number of marriages in-

creased during the twenty years ending in 1850. In 1861, however, there was only one marriage for every 125·5 persons; and in 1870 only one for every 160. This latter, it is true, was the year of invasion; but in 1869 the marriages were fewer by over 2,000 than they had been eight years previously. Further, not only has the number of marriages decreased in France, but the age at which they are contracted has risen from an average of 26 to 31 among males, and from 24 to 26 in the case of females. Again, marriage between persons of disproportionate ages shows a marked tendency to increase, and second marriages are becoming much more frequent.

I do not possess any very recent marriage statistics with respect to England, Belgium, Holland, Austria, Hanover, Bavaria, and Prussia. In England there was an increase in the number of marriages of 1 in 127 for the period 1841-45, to 1 in 121 for 1846-50. On the other hand, in Belgium, the relation of marriages to the population decreased from 1 in 145 between 1841 and 1845, to 1 in 154 between 1846 and 1850; and in Holland from 1 in 137 between 1840 and 1845, to 1 in 140 between 1845 and 1849. In Austria, after numerous oscillations, it rose from 1 in 119 in 1830, to 1 in 110 in 1848-9; in Hanover, from 1 in 133, in 1824-33, to 1 in 123, in 1834-43; in Bavaria it rose from 1 in 152 in 1830-32, to 1 in 149 in 1833-35; in 1836-46 it went down to 1 in 158; but it afterwards rose again to 1 in 151. In Prussia, it decreased by a regular diminution, from 1 in 88 in 1816 to 1 in 109 in 1849. It would seem, therefore, that the increase or decrease of European marriages is without any precise solution. If in Prussia, a Protestant state, and in Belgium, a Catholic country, there is a decrease, in England, Austria, Hanover, and Bavaria, there is an increase; that is to say, that the decrease and increase are not affected by religion, climate, or civilization. It has been suggested that the increase or decrease in the different States may depend on prosperity and adversity; and a late writer considers that the frightful misery which Flanders, Prussia, and Silesia have suffered for several years may explain the exceptional numbers in those countries.

Let us now examine the statistics of marriage fecundity. In Belgium, Holland, Prussia, and England there has been a decrease in marriage fecundity. In Austria there is an increase. At the beginning of the present century, the average number of children to each marriage in France was as high as 4·25. After 1800 the number began to diminish, until between 1866 and 1871 it was no more than 3·01. In 1872 there was a still further decrease. The figures just given show a falling off in 70 years of over 29 per cent. In this respect, France is at the bottom of the list of European nations.

From the latest statistics that I have been able to consult, the average relation of the two sexes in fifteen states (Portugal, the Sardinian States, France, England, Belgium, Switzerland, Holland, Austria, Saxony, Würtemberg, Bavaria, Hanover, Denmark, Sweden, Norway), for 10,000 inhabitants, is 4,961 males,

5,039 females. It varied between 5,003 in Prussia, and 5,169 in Sweden ; that is to say, the numerical superiority of the female sex is lesser in Prussia and greater in Sweden than in the other countries. In Piedmont and Sardinia however the males exceed the females in the proportion of 5,024 to 4,976. There is a considerable preponderance of males over females in Roumania. In 1865, out of 127,797 births, the proportions were, males, 68,158 ; females, 59,639 ; and for deaths, males, 48,078 ; females, 40,980. There are no positive data as to the proportions of females to males in the large towns. In Berlin, Paris, Marseilles, Rome, and St. Petersburg there are more males than females ; in Naples, Lyons, Bordeaux, Lille, Rouen, Florence, Brussels, Vienna, London, and Stockholm it is the reverse. Legoyt thinks the difference arises from circumstances purely local ; amongst others, the existence of industries which employ more men than women ; and *vice versa* ; as, for instance, establishments of public instruction where only men are employed ; the great works of public utility in way of execution ; the garrisons, &c. There is no European capital which presents such an extraordinary anomaly in the sexual relations as St. Petersburg. It would appear from censuses made at several epochs that in the latter city there are 100 men to every 50 women. This has been accounted for by the fact that Russians of all ranks employ as few women as possible in domestic service ; and by the rigour of the climate which is prejudicial to any but male immigration, which is also very great in winter. Dr. Bertillon, in a paper entitled, *La Population Française*,* read before the Association Française pour l'Avancement des Sciences, has lately shown an abnormal increase in the mortality of the young men of France from twenty to twenty-five years of age. Indeed, a man of forty years of age in France generally, and of forty-five years in the department of the Rhone, has less chance of dying during the year than one of twenty-two years of age.

After giving a table of the comparative mortality at each age for France (1857-1866), and for the Department of the Rhone 1849-1858), Dr. Bertillon says :—

“Cependant il faut insister sur cet accroissement si anormal de la mortalité de nos jeunes hommes de 20 à 25 ans, accroissement si intense qu'il faut dépasser en France la 40^e année, et dans le Rhône la 45^e année d'âge pour retrouver une mortalité égale à celle de nos jeunes hommes de 22 ans ! de sorte qu'un homme de 40 ans en France et de 45 ans dans le Département du Rhône a moins de chance de mourir dans l'année qu'un jeune homme de 22 ans ! C'est un paradoxe biologique, une anomalie des plus singulières et qu'on ne retrouve ni en Angleterre, ni en Suède, et seulement très-faiblement accusée en Belgique et dans le canton de Genève, tandis qu'elle est extrêmement prononcée chez nous et surtout dans notre département (Rhône). Si cet accroissement, évidemment pathologique, de la mortalité de nos jeunes hommes, commençant avant 20 ans et ne prenant fin qu'après 36 ans, n'existait pas ; si, comme il est normal, comme elle fait en Angleterre, en Suède, &c., la mortalité croissait régulièrement de 12 à 40 ans, plus de 11,000 jeunes hommes (dont 8,000 de 20 à 30 ans), qui chaque année succombent en excédent de cette régulière progression, nous seraient conservés ! Il y a donc une indication pressante d'étudier les causes de cette funèbre anomalie, et il y aurait sans

* See *La Revue Scientifique*, 6th September, 1873.

douto quelque chance de les découvrir plus facilement dans les départements ou elles paraissent avoir leur maximum d'effet, comme dans l'Ariège, les Hautes-Alpes, l'Isère, le Rhône, où l'aggravation soudaine de la mortalité masculine de 20 à 30 ans est la plus marquée."

In most parts of Europe there would appear to be a regular and general diminution of the mortality, and a prolongation of the average life. In England considerable changes have taken place in the average duration of life during the last one hundred years. At the early part of the latter period it was twenty-eight years; according to more recent tables it was thirty-two years; and it has been contended that it may fairly be expected to extend to forty years.

"It has been remarked," says the *Lancet*,* "in this country and others during the prevalence of epidemics, that the Jews appear occasionally to enjoy an immunity from contagion, and that while a pestilence has swept through streets, decimating the inhabitants, it has left the Jews untouched. This immunity, occurring when the hygienic conditions affecting Jew and Gentile were nearly equal, suggests some curious reflections. In certain countries the death rate of the Semitic race appears constantly in a favourable light when compared with that of the Christian population. In Roumania, for a long time past the mortality of the Jews and Christians has presented a striking contrast; and, while the deaths among the latter people have greatly exceeded the births, the contrary has been in a marked degree the case among the former."

A late report of Mr. Green, the British consul at Bucharest, dealing with the immense death-rate of the Christian population of Roumania, contains the following:—

"It might be thought that this cruel sign of the decay of the country arose from general climatic causes, from the unhealthiness of localities, or from the prevalence of diseases beyond the control of man. This, however, is not the case; and the proof of it is that the Israelitish population, wherever it is found, is not subjected in our country to the law of excessive mortality. The mortality among the Christian population cannot therefore be attributed to the above-named causes, which would operate with the same cogency on the Jews. It must have its root in the different manners, customs, and mode of life of the Christians compared with those of the Jews, for it is a remarkable fact that not only do Roumanians die in larger numbers than they are born, but the same may be said of all Christians in our midst, of whatever nationality. Foreigners who come to our country adopt our customs, and, as a rule, the bad ones first; they begin to eat as we eat, and from this entrance into our social system we may account for their being included under the law of mortality by which the Jews, who remain aloof, having different manners and different modes of life, are not influenced."

I have not seen any very recent statistics on disease, but, to judge from many facts, I should say that diseases are on the increase almost everywhere; although it must be admitted that they have generally assumed milder forms. Hereditary disease is very wide-spread. It is difficult to find a family where it does not exist. We have between 40 and 50 forms of it in Great Britain alone. One of the most common forms of hereditary disease is that of syphilis, which especially prevails among the lower orders. Amongst females, diseases of the uterus would seem to be greatly more prevalent. Michelet has very properly styled the present century an "Uterine Age." Heart disease in England and the United States is increasing; ophthalmia and alopecia keep pace with the progress of civilization.

* 28th June, 1873.

It is the general opinion that insanity is on the increase in France and Great Britain. We have statistics for France, Prussia, Saxony, Bavaria, and England; but in several continental countries, idiots, crétins, and the insane are mixed up together, so that it is impossible to utilize the official documents.* With regard to Great Britain, it is said that the supposed increase cannot be relied upon, inasmuch as the greater number and better management of lunatic asylums at the present day cause many more persons to be conveyed to them, and thus placed within the reach of statistical research; while formerly many lunatics were allowed to wander about as beggars; many, from shame or fear of the horrors of the asylum, were concealed in private families; and some, from ignorance, were punished as criminals. But how is it possible to ascertain the number of lunatics who have never left the domestic roof? If in England this could be ascertained, and a census could be taken of the lunatics who are allowed to circulate in our streets and to talk at St. Stephen's, we might probably arrive at the conclusion that there are as many lunatics out of the asylums as there are in the asylums. From the report of the Commissioners in Lunacy for the year 1872, containing the ratio per 1000 of the total number of lunatics, idiots, and persons of unsound mind to the population in each year from 1859—1873, both inclusive, I select the following:—

<i>Year.</i>	<i>Population.</i>	<i>Number of Lunatics, &c., on 1st January.</i>	<i>Ratio per 1,000.</i>
1859	19,686,701	36,762	1·86
1863	20,554,137	43,118	2·09
1867	21,429,508	49,086	2·29
1871	22,712,266	56,755	2·49
1873	23,356,414	60,296	2·58

It would appear from the Journal of Mental Science for October, 1873, that in the beginning of the year there were 66,539 persons known to be of unsound mind in the United Kingdom (England, 58,810; Scotland, 7,729); that at the end of the year there were 68,145 (England, 60,296; Scotland, 7,849); showing an increase of 1,606 (England, 1,486; Scotland, 120). There were, not including transfers from one asylum to another, 12,526 admissions into asylums, &c., during the year (England, 10,660; Scotland, 1,866), against 12,594 in the previous year. New developments of insanity during the year show therefore a considerable decrease for the year, taking the increase of population into account. Dr. Tuke, who relies on the first-named return, says:—

“It will appear from this that in the ten years ending June, (January?) 1873 there has been an absolute increase of the insane from 43,118, to 60,296; in other words, the number of the insane upon the register of the Commissioners in each year increased by 2,000; and that there is a much greater increase than is commensurate with the growth of the population is shown by the ratio of the insane to the sane having increased from 1·86 per thousand, to 2·58.”

* On 1st January 1835 the number of insane in the public and private asylums of France, was 10,539; on 1st January 1864 it was 24,052 in the public asylums.

By Dr. Farr's table the increase of insanity is more strikingly shown, by dividing the population into groups of those below twenty, those of middle age, and of advanced age. From this table it would appear that the ratio of the insane to the sane in the adult population has increased during ten years from 4·1 to 5·3 per thousand, an increase of more than twenty per cent.*

"Various reasons," says Dr. Tukey, "have been suggested, to explain this increase, supposing it to be such. It has been thought that the congregation of large bodies of men in towns and cities, the confinement arising from the nature of their toil, and the restriction of their space, has given us a degenerate population, subject to mental disease; but this is not altogether so; such causes would induce idiocy in children, and diminish the average duration of human life, but would not necessarily induce insanity in men of mature years; moreover, it is by no means certain that the inhabitants of the crowded city are more prone to mental disorders than the inhabitants of agricultural districts. The emigration of the adult population which has been steadily increasing during the last half-century, may also have had some influence upon these returns, but it cannot be a great one; if emigration takes to other and kindred shores some of the finest of our peasantry, the best of our workmen, it also fortunately tempts the unstable, the enthusiastic, the adventurous, the disappointed, who perhaps remaining here fretful and despairing, would have swollen the number of the insane. The hypothesis has been advanced, that the progress of civilization, and the spread of education among the masses, have, with a greater activity of brain, produced a corresponding increase of nervous exhaustion and disease Such a theory receives no support from statistics; if intellectual training and mental exertion were causes of insanity, then it should be more frequent in those ranks in which during the last half-century the mental powers have been so much more cultivated and exercised. The statistics of lunacy show that the increase of insanity has been amongst the poorer classes only. The Commissioners in their 8th table state the per centage of poor lunatics to the total number of the poor to be 3·66 per thousand in 1859; but the large proportion of 5·98 per 1,000 in 1873; or nearly double in fifteen years. This increase has been notably great during the last two years. I fear the explanation is to be found in higher wages, and the consequent means of undue indulgence. But there is another aspect to this view. It may be that the inexorable laws of supply and demand, while giving more than due wages to some of the working class, plunge others into dire distress. The knowledge of this can only add to our tender pity for the insane poor. That poverty and the absence of mental training have much to do with the production of insanity is shewn by the return of the Commissioners in lunacy for Ireland. From 1846 to 1861 there was an increase of *one-third* in the number of the insane in this part of Great Britain; the population by emigration and other causes having diminished during the same period by nearly three millions."

Dr. Tukey further says:—

"That the decrease in the number of the insane of the higher ranks is not due to their being sent away from home into other houses than asylums is fully shown by the returns of the Commissioners; less than one in ten of such cases, the Commissioners register as recovered. The diminution in the number of the insane of the upper classes is due, I believe, to the improved knowledge of the disease amongst the medical profession; hence arise an earlier recognition of the malady, and a greater application of remedies. These, moreover, have recently been much increased in numbers, and their action and those of the older ones more studied and better understood."

The relation of the sexes in insanity would not appear to be subject to any special law. If, indeed, in France, the females are much more numerous than the males, the contrary is the case in

* Jour. Ment. Sci.

Austria, Italy, Spain, and Great Britain and Ireland. But in those States where the insane have been distinguished from idiots, we always find more men than women amongst the latter. The relation of idiots to the insane does not appear to repose upon any fixed principle. Again, facts before us do not confirm the opinion very generally accredited that insanity has more victims in the north than in the south of Europe. If women figure in the majority of the tables made up for France, and in the minority, on the contrary, in those which are made up for Great Britain, French writers are of opinion that the institutions and manners of the people suffice to explain the difference. The returns show that the recoveries in Great Britain for the last year amounted to 5,104, viz., England, 4,228; Scotland, 876, against 4,961 of the previous year, being an increase of 143. The per centage of recoveries amongst those admitted was therefore 40, (England 39, Scotland 47). This is an increase of 1·4 per cent. for England, and a diminution of 3 per cent. for Scotland, the general increase for Great Britain being 6. The per centage of recoveries was 43·6 in English, 42·6 in Scotch public asylums. For the same period the deaths among the insane numbered 4,115, as compared with 4,361 in the previous year. The death rate of those in public asylums in England, was 9·6, and Scotland 8·5. It is thought however that to institute a fair comparison, the mortality in registered hospitals in England should be included with that of public asylums, which would reduce the rate to 9·4 per cent. It must however be taken into account that the rate of mortality in England had diminished by over one per cent. as compared with the previous year, while in Scotland it had remained the same.* In France, during the period 1842-1853, the annual mortality of the insane in the united asylums was 15·52 per cent. for males, and 12·05 for females; in all, 13·75. From 1854 to 1868 the mortality was 16·02 for males, and 12·21 for females; total 14·03 per cent. There was a numerical excess of women over men during 1854, viz., men 12,036, women 12,860; in 1860, there were men 14,582, women 15,657. Up to the end of 1870 insanity was on the increase in the United States, especially in the Western States, and in its worst form, viz., that arising from a diseased state of the cerebellum.

Among the predisposing causes of cretinism in France are bad food, insufficient clothing, unhealthy dwellings, and moral and intellectual inertia; in fine, misery and ignorance with their consequences. The telluric causes of cretinism are more difficult to determine. Among others are, want of iodine in the water and calcareous nature of the soil. Robertsau, near Strasbourg, was formerly infected with cretinism and goitre. Since the soil has been rendered wholesome and drained, the land protected from inundations, schools established, and the dwellings and mode of life ameliorated, according to Buchez, there have been no cases of cretinism.

From a late return it would appear that suicides are on the increase in Hanover, Denmark, Piedmont, Norway, Prussia, England, Sweden,

* See Journ. Med. Sci. Oct. 1873.

and France. The highest numbers occur in Hanover, where the proportion is 50·78 per 10,000 deaths; the lowest in Denmark, viz., 16·40. In the following countries the proportions are—Piedmont, 46·82; Norway, 45·22; Prussia, 36·20; England, 28·20; Sweden, 25·90; France, 24·10. In the above States there is only 18 per cent. (not quite a fifth) of the female sex. Among females the lowest numbers are in Hanover, where there are 30 female suicides to 100 males; the highest in Piedmont, viz. 49 to 100. In France the proportion is 32; in England 45.* Neither the difference of religion or of climate would appear to have any influence upon the number of suicides.

I have no doubt that statistics would prove that intemperance is greatly on the decrease in England; but I doubt whether on this subject statistics are a safe guide, especially if it be true what a late Lord Mayor of London told the Hon. G. H. Vibert a short time since, viz.—that ten out of twelve cases brought before him were distinctly the result of intemperance.† There can be no doubt that in Russia and France this vice is greatly on the increase, and that in the last-named country the habitual drinking of absinthe is producing a large amount of insanity. All over Germany drinking is the order of the day from morning to night, and in North Germany it is not uncommon to find the guard and several of the officials at the railway stations in a state of semi-intoxication. In Sweden measures have lately been adopted with the view to put down intemperance. A late writer, hailing from Sweden, says:—

“The town of Gothenburg can boast of having carried on the war against drunkenness with the greatest success. Since 1865 the whole spirit trade of the community has been transferred to a philanthropical company, which has undertaken to pay over to the town the whole profits of the business, and thus is working merely for the cause of temperance. The company which disposes of all the licences, 43 in number, acts on the principle that no manager of its public-houses shall derive any profit from the sale of liquors. All the *employés* of the company have fixed salaries, and the only extra profits they derive is from the sale of food, which is always to be provided on the premises. It thus becomes their interest to promote the consumption of food rather than drink, and gradually to transform the public-house from a mere drinking-shop to a kind of restaurant. No sales on credit are allowed. The results have proved very satisfactory. Not only have the public-houses been transformed from dark and dirty holes to clean and well-lighted houses, where unadulterated goods are supplied, but at the same time drunkenness has fallen off to a remarkable degree. While in 1865 there were 2,070 cases of drunkenness reported in Gothenburg, in 1871 there were only 1,533; a reduction of about 25 per cent. in a town whose population is rapidly increasing and rising in prosperity. The example set by Gothenburg has been followed by several other communities, and the system has everywhere been found to work exceedingly well. . . . But it is not the only enemy against which drunkenness has to contend. A movement has recently sprung up among the working classes themselves, which promises to be a more formidable foe to the public-house than the old temperance societies. Some time ago the workmen of Messrs. Birt and Warburg, a large firm in Gothenburg, made an agreement between themselves, by which no married man should be allowed to go into the public-house, and the single men only

* In the period 1855-1865 the proportion of suicides for every million inhabitants of the following countries were—Denmark, 288; Prussia, 123; France, 110; England and Wales, 69; United States, 34; Russia, 25; Spain, 14; Portugal, 8.

† *Standard*, Oct. 3, 1871.

at meal-times. They at the same time agreed never to treat each other to a glass of brandy, and imposed a fine on the transgression of this rule. They, however, did not pledge themselves to total abstinence. Married men were free to keep spirits at home, and the unmarried to have their glass of brandy at their meals. They did not wish altogether to proscribe the use of spirits, a moderate quantity of which in the cold climate of Sweden is rather useful than detrimental to the constitution. A wide publicity has been given to their resolution, and an urgent appeal made to their brother workmen in all parts of Sweden to join in the movement, which now appears to be rapidly gaining ground. Nearly every morning I have found a notice headed 'The Brandy War,' and announcing that some body of workmen have sent in their adhesion to the new programme.*

Prostitution is without doubt on the increase in Europe. The statistics are probably higher in England and Belgium than in the rest of Europe. In England, while the principle of inviolability of domicile and the connexion between prostitution and theft exist, it will probably increase. The numbers run very high in Prussia, Austria, Bavaria, Württemberg and Roumania. The towns are the chief centres. The prostitution statistics of London are quite out of proportion with those of Paris; but we have no reliable statistics for London. At the end of the last century, when the population of London was certainly not over one million, Dr. Colquhoun, magistrate at the Thames Police Court, affirmed that there were 50,000 prostitutes in London.† This was considered at the time to be an exaggeration. Subsequently (just prior to 1839), the estimate for the Metropolis was 80,000, which had the support of Dr. Ryan and Mr. Talbot, secretary to the Association for Young Females. At this latter date the population of London probably numbered 1,632,000. If then at the present day we have in London and its suburbs a population of upwards of 3½ millions, and prostitution has not proportionally decreased, the number will probably be 160,000. Dr. Ryan‡ says also that the number of persons pandering to the vice in London, those directly engaged in aiding and assisting in decoying young females for the purpose, and looking after prostitutes in the streets, cannot be less than 5,000; and that 400,000 persons are computed to be directly or indirectly connected with prostitution, and £800,000 expended annually in London on this vice alone. Paris is recruited almost wholly from the departments. Some of the women are from other countries, but principally from the capitals. England, Scotland, America, Africa, and Asia contribute a few. From the 16th April, 1816, to 30th April, 1831, out of 12,707 women inscribed at the Prefecture of Police, 12,201 were from the departments, and 415 from other countries than France. The highest numbers of those from other countries were, Belgium 161, Switzerland 59, Prussia 58, England 23, Holland 23, Savoy 22, Austria 15, Spain 14, Piedmont 11. Thirty-one were from countries other than Europe, and 24 were not able to state their native country. In a later return, from 1845 to 1854 inclusive, the numbers would appear to be not very different. Out of 348 women from foreign countries, the highest

* See *Standard*, Nov. 1873.

† See Parent-Duchâtelet, vol. ii. p. 562.

‡ Prostitution in London, 8vo, 1839, p. 192.

numbers were, Belgium 120, England 56, Sardinia 38, Prussia 36, Switzerland 18, Germany 17, Bavaria 16, Spain 15, Holland 12. In some of the country districts of England prostitution is almost unknown, but so is chastity also. It would seem that the chief causes of prostitution are large centres of population, orphanage, stoppage of work in manufactories, domestic misfortunes, especially bad treatment and bad example of fathers and mothers, misery, poverty,—which latter is frequently occasioned by trade competition,—love of dress, drink, vanity, luxury, idleness, seduction, celibacy, inequality of the sexes, bad example acquired in manufactories, and a sojourn in hospitals. Faber* says: “Parmi cent filles publiques il y a trois qui le sont par tempérament, dix par fainéantise, le reste par calcul.”

Prostitution in England is largely in league with the criminal classes, and in modern times the stage has become a nest of prostitution. There is less excuse for the vice in London than in Paris. In the latter city the women are almost exclusively derived from the artisan class and the poorer classes, who are unable either to educate their daughters, or to exercise surveillance over them, and still less to provide for their wants when they have arrived at a certain age. Further, in Paris, the women belong mostly to families who are also ignorant; and about a fourth of those born in Paris, and a fifth of those from the country, are illegitimate children. In recent times a great deal has without doubt been done to arrest the progress of prostitution by the establishment of asylums and refuges. Much has also been accomplished in France by measures of police, which have been imitated in Belgium, Holland, in most of the great towns of Germany, in St. Petersburg, Rome, Naples, Milan, and even in the United States and Brazil. The result of the measures adopted in Great Britain to suppress the vice would seem to be to drive the women from one parish to another, and to make it as public as possible, by preventing females from indulging in innocent amusements.

That the increase of crime in England has far outstripped the increase of population, there cannot be a doubt. I have not however any very recent statistics on the subject. Mr. Porter says:—

“If we refer to our criminal returns, it will be found that in England and Wales the number of persons committed for trial is now more than five times as great as it was at the beginning of the century; while in Ireland the proportionate increase has been more appalling, there having been in 1849 twelvefold the number of committals that were made in 1805, the earliest year for which our records are available. There are not many accounts of so early a date by which we are able to make a similar comparison for Scotland; but comparing the number of committals in 1815 with those in 1849, we find that in those thirty-four years they have increased sevenfold. But the total amount of crime can never be proved by statistics. In proportion as knowledge increases so does the concealment of crime. It may however be here incidentally remarked that although there is a great increase of crime against property, there is a diminution of crimes of violence.”

Statistics would probably show that pauperism has greatly declined in England and Wales, and perhaps even in Scotland. But in this I agree with Cherbuliez, who says: “Statistics is a vain and

* Promenades d'un désœuvré à Saint Petersburg, t. 11. p. 105.

illusory science, which performs much less than it promises. Every author has found facts which agree with his theory, some almost fabulous numbers of indigents, others ridiculously small numbers." The same author, referring to certain French statistics, observes :—

"There need be no room for astonishment when we examine the elements of which these data are composed; the only data of any value of themselves are those relating to official or public aid, private charity, and of certain minor associations. But what do these numbers teach us? They teach us that special or collective charity tends to augment the number of indigents, and it would do so if there were no poverty at all; but it is susceptible of a great variety of forms, and the tendency in question is not equal under all such forms. The official numbers therefore prove nothing as to the real intensity of pauperism and the extent of the misery from general causes. After the reform of the Poor-laws in England in 1834 the number of indigents decreased more than half."

There would appear to be a very large amount of poverty in London, and it may be a question whether it is not on the increase. In 1870 the number of out-patients at the various medical charities of the Metropolis amounted to 1,157,016, exclusive of the unascertained number of out-patients treated at seventeen hospitals and dispensaries from which the Medical Committee of the Charitable Organization Society had obtained no statistical information. It would appear from this that one in three of the whole population of London is a recipient of medical charity. But allowing for some patients from the country, this would be reduced to one-fourth of the whole metropolitan population. Doubtless even this latter number might be further reduced, if we deduct those who go to the hospitals because they can get better advice there than elsewhere; and also those who can afford to pay for advice, but spend their money in other ways. Again, in Holland pauperism has been on the increase for many years. On the other hand, in countries where the causes and remedies for poverty are properly understood, there is a tendency to a decrease of the evil; thus the number of indigents inscribed at the *Séours Publique* at Paris decreased more than half in forty-seven years,* although the population almost doubled during the same period; and this notwithstanding all the causes to which the progressive increase of the scourge are attributed existed at one and the same time in the capital of France. Further, mendicity has entirely disappeared in many States of Europe, and is greatly diminished in others; the poor themselves are generally better clothed and better nourished. But the most striking proof of the progressive reduction of misery in Europe, is the progressive and general diminution of the mortality—the prolongation of the average life.

Perhaps, on the whole, divorces are on the increase in England. The divorces annually pronounced in Berlin are nearly double those of any European capital. In Saxony divorces can be obtained on the most trivial pretexts, and for a very small charge. In the United States the causes of divorce and the facility or difficulty of obtaining it, are not the same in the several States; and Chancellor Kent thought it questionable whether the facility with which divorces can be

* This was just prior to 1853.

procured in some of the States is not productive of more evil than good. As a rule, Catholic countries still continue to set their face against divorces. There are however exceptions, as in Poland and Roumania. In the latter, divorce seems to be the order of the day, but re-marriages between the same parties are not at all uncommon.

"In the principalities," says Mr. Wilkinson, "the sentence of divorce is pronounced so frequently, the motives alleged are sometimes so frivolous, that it never affects the reputation of a woman, so as to degrade her in her ordinary rank of society; nor does it in the least become a scruple to the delicacy of the man, whatever may have been the nature of its motive. There are but few families at Bucharest who have long continued in an uninterrupted state of domestic harmony, and fewer still who can point out a relation who has not gone through a divorce."

There has always been great opposition to divorce in France. It was allowed by the *Code Napoléon*, but was afterwards abolished by the Bourbons. As a late French writer remarks :—

"It would be worthy of a nation like France, where religion is separated from the State, to allow liberty of conscience; and not to make a religious question of one that is purely civil. Even the Arabs and the Jews can divorce their wives, and under the Muhammadan Code, for cruelty and some other causes, the wife may have a divorce from her husband. But although there is no law of divorce in France, a separation can be obtained; and there, and in all Roman Catholic countries, the Church, to increase its revenues, as it is said, has reserved a power of divorce independent of the State."

In Europe, no doubt, superstition is everywhere dying out. Man virtually says to those who teach both the improbable and the impossible: "We don't want your superstition; give us a little morality, and that of the practical sort; give us humanity." Religious liberty is to be found everywhere except in Denmark and Prussia, in which latter country the government is doing its utmost to persecute the Roman Catholics. Here the Catholic schools—even those in convents—are dispersed, and hundreds of Catholic parishes have been deprived of their clergy. According to Brandes, there is but little freedom of speech in Copenhagen. "*Amica Dania sed magis amica veritas.*" Perhaps in Turkey and Persia more religious toleration is to be found than anywhere.

Notwithstanding legislative efforts, the adulteration of food is on the increase everywhere, and is producing the worst consequences. In this respect, the great offenders are found among the Teutonic peoples. Prussia and Great Britain have more to answer for than all the rest of Europe.

In modern times there is no doubt nearly everywhere to be found a great taming down of the passions. In the last century any apparent improvement in this direction was a mere varnish-covering of the natural feelings, liable to be rubbed off at any moment. At the present day we find this taming down in many ways; among others, in the abolition or reduction of capital punishment, and in the lessening of punishment in general. Formerly punishment was too often inflicted in a spirit of revenge. Now we punish for example, and oftentimes for the real benefit of the criminal. In recent times the horrors of war have been softened down to a considerable extent

by the non-destruction of property and unarmed people ; by the beneficent aid rendered to the wounded, and by the care for the health of troops ; but the barbarities of the Prussians in the late French war will ever remain a dark stain on the annals of the 19th century, a stain that will not be wiped out by German unity or German civilization. Happily for Europe, although Prussia has done its best to demoralize Germany, Prussia does not represent Germany. It is indeed the least German of all the Teutonic peoples, and the greatest intellects of Germany—poets, dramatists, musicians, architects, philosophers, thinkers, metaphysicians—were not born on Prussian soil.

One of the characteristics of the present age in Europe is destructiveness. Everywhere ancient monuments are being destroyed to suit the spirit of the age, viz. :—commerce, trade, utility and vulgarity. Political liberty is on the increase in almost every part of the globe. Social liberty is found nearly everywhere but in England. Now-a-days the middle classes dictate to the upper classes, while the lower orders dictate to all those above them. Miss Braddon is quite right when, speaking of England, she says : “The feudal system of fine and forfeiture has only changed hands. The former still flourishes, only it is the villein who takes tithe of his lord.” Christian missionary enterprise continues its deleterious work in most parts of the globe. It would seem that on the West Coast of Africa the missionaries obtain most of their converts by means of stimulants. Mr. Winwood Reade says :—

“There is neither honesty amongst men nor honour to be found in women ; the hospitals are full of syphilis and gonorrhœa ; and robbery is the rule of life. Amongst the pure pagans such abuses are corrected by fire and steel—not so amongst the negro Christians On the other hand, every African traveller knows what enormous progress the religion of the prophet is making in that continent ; beyond the scope of European eyes a great reformation is taking place. I have travelled among Muhammadan negroes. I have found them sober, honest, and truthful. I have found a school in every village where a marabout teaches the Koran. I have found, in a word, the Muhammadan convert as superior to the Christian convert as he is superior to the pagan savage. Such is my evidence as a traveller in that country. I have found Christian missions not only inferior to Muhammadan missions as a means of civilising negroes, but absolutely useless.”

Mark Twain says of the Sandwich Islands : “The natives were happy till the white people came with the missionaries ; since which, through trade, commerce, education, civilization, and the accompanying frightful mortality, the people, who were once counted by hundreds of thousands, have dwindled down to 50,000.” Another writer in the *National Reformer*, speaking of missionary enterprise at Tahiti and the Sandwich Islands, says the population decreases so rapidly that it is but fair to conclude that by the end of the century a Kanaka will be as rare an object as an Aztek or a Scotsman in kilts. It would appear from *Johnston's Gazetteer* of 1850 that the population of the whole group of Sandwich Islands was then variously estimated at from 100,000 to 185,000. The Archbishop of Canterbury seems to have great hope for missionary enterprise in India,

although he admits that out of 180 millions subject to the British crown, though great efforts have been made of late years to bring the influence of missionaries to bear upon those whom they could not formerly reach, still, with all their efforts, not above 318,000 Protestant converts have as yet been made from these native populations,—that is, speaking very roughly, about 1 in 600 of the population. On the other hand, a late writer says :—

“The results attained by the great missionary enterprises dating in the Roman Church from the 16th, and in the Protestant Churches from the 18th, century, are in reality extremely slender, if we compare the number and kind of the converts with the immense sacrifices made to obtain them. One fact is especially striking. The only cases in which Christian missions have acted with any degree of power have been upon populations of decidedly inferior race, previously untouched by any current of civilization ; and the question arises whether these youngest children of nature will survive their moral fusion with ourselves. More than one observation seems to answer in the negative ; while, on the other hand, our western Christianity has failed to bring over more than an insignificant fraction of the population from any of those vast Moslem, Buddhist, or Brahminical societies which still cover the greater part of the inhabited globe. No account can be taken of the baptised Catholics of China and Japan, who are scarcely less idolatrous than the mass of their countrymen ; and the work of Protestant missionaries, though it presents here and there truly gratifying results, cannot on the whole be regarded as much superior in fruitfulness. Our missions are in a position to which the old motto of the Jesuits might be applied, with an important variation : “*Sint jam quod non fuerunt, aut non erunt.*”

Another writer says : “Wherever missions have been planted successfully in the Pacific, artificial wants speedily spring up. The trader comes in, and in his train follow drunkenness, vice in its most loathsome form, disease, and premature death.”

Without at all wishing to advocate slavery,—admitting, indeed, that free labour is acknowledged by the masters as superior to slave labour, and that slavery is an obstacle to the progress of agriculture, and for a still stronger reason to manufactures, there cannot be a doubt that the abolition of slavery in the British Colonies (in 1833) has had a most injurious effect. 1. As the slave population in general does not maintain its numbers by natural increase, and as plantations in America are extended, there is a demand for a fresh annual importation of slaves from Africa, who are taken to Brazil, Cuba, Puerto Rico, Monte Video ; and, it is said, clandestinely and circuitously, also to Texas. 2. The increased sufferings of slaves in their passage from Africa. 3. The forcible seizure of slaves in hunting excursions, and in wars between the chieftains ; the loss on their march to the sea-coast, the loss in the middle passage by their being thrown overboard in chase and otherwise (on an average, 1-4th of the cargo), and the loss, after landing, in what is called “the seasoning of slaves.” Then, again, the abolition of slavery in the United States seems to have had the effect of favouring idleness and partial indigence, and of leaving a large part of the land uncultivated. It has also occasioned social discontent that has not yet found its outlet, and is likely to lead to a servile strife. It has produced moral degradation and less regard for the proprieties of life ; and, among the whites, it has caused much social irritation. In Russia, drunkenness,

and idleness have increased since the serf has obtained his freedom. As for the Russian servants, they will not work at all if they can help it. Without any warning, the servant suddenly packs up his traps and tells his master he is off to his *dacha*, that is, the country house of his relation.

I will here note the extraordinary change of habitat that is taking place among the lower races of man. In the season 1871-2 5,030 Indians and Chinese were transferred to the West Indian Colonies, viz., Jamaica, Trinidad, and Nevis: those sent to British Guiana were chiefly Chinese. The majority thrived by the way, but the emigrants by the Trinidad ship are described as not worth the expense of their introduction. The total number of immigrants on estates in British Guiana was as follows:—

Indians (from India)	..	..	..	..	42,763
Chinese ..	..	..	..	..	5,847
Africans ..	..	..	..	..	1,047
West Indians	..	..	..	..	1,054
Portuguese	..	..	..	..	823
					<hr/> 51,534

The last-named category were probably Brazilian mixed breeds. An astonishing fact has been recorded in a Blue Book of the exceptional honesty in the African race. Six hundred and eighty-three Kroomen who were sent to St. Vincent, St. Lucia, and Grenada, returned to their friends and relations at home the amount of £6,144 8s. remitted through Government agencies on their behalf. Nostalgia in the negro thus becomes a financial question; and the next step will probably be the establishment of Friendly and Provident Societies among them. Immigration of natives from India is declared by the Indian Act No. 7 (1871) to be unlawful, except to certain localities. The demand for labour in the West Indies seems to increase. In order to keep up the present sugar and cocoa cultivation in Trinidad, an annual introduction of from 2,000 to 3,000 immigrants is required. It is much to be regretted that the Government tables confuse the number of "immigrants and liberated Africans" together. It appears that since the abolition of slavery in 1833, there have been introduced into the West Indies 280,994, and into the Mauritius 403,050 of this complex class. What has become of them or their children can only be guessed. It however results that the physical appearance of the natives of the West India Islands will probably show traces of Hindu, Chinese, and Negro blood. Emigration generally would appear to be on the increase in most parts of Europe, and if we take into account the continued withdrawal of capital, and that emigrants usually consist of the most laborious and most enterprising, there cannot be a doubt that it has generally speaking a most baneful influence. It may be said, however, that the emigrants are sometimes composed of the poorest and the least enterprising. So much the worse. Far better to remain in misery on one's native soil than to perish of want in distant lands. It may

be doubted whether emigration is always occasioned by over-population in the mother country. I have not before me any statistics to show the exact number of emigrants from the principal States of Europe. In the following thirteen countries the density of the population per kilometer is placed in a decreasing order—Belgium, Saxony, Holland, Würtemberg, France, England, Switzerland, Bavaria, Portugal, Hanover, Denmark, Sweden, Norway. The greatest density is 14,740 per kilometer, the smallest 290. A late writer in the *Pall Mall Gazette*, after stating that emigration has been Ireland's blessing and salvation, says it still continues, though at a reduced rate. From 1851 to 1871 the number of emigrants rather exceeded an average of 100,000 per annum; the last three years it has scarcely reached 75,000. But probably this is enough, if we give careful heed to one special feature of Irish emigration, to which we desire to draw attention—that is, the ages of the emigrants. It is obvious that if all or most of them belong to the vigorous period of life, or consist of those who will shortly arrive at that period, the ultimate effect on the population of the island will be very different from what it would be if a proportionate number of each age were to expatriate themselves. A country may be very well able to spare 75,000 or 100,000 annually, if they consisted of the old, or are taken equally from every period of life; while a yearly drain of 75,000 or 100,000, all of the age of 20, would ere long amount to virtual depopulation. Now as a matter of fact the emigrants do consist in overwhelming proportion of those to whom Ireland has to trust for her future increase of inhabitants. They consist, too, mainly, it may be assumed, of young married couples, or those about to marry, for the numbers of the two sexes are very nearly equal. Just 77 per cent. are between 15 and 35 years of age; 47 per cent. being between 15 and 25. The effect of this upon the proportions at each period of life remaining at home is remarkable, and is growing more perceptible year by year. Thus in 1861 the proportion of the population between 20 and 40 years of age was nearly 30 per cent. in England, and less than 28 per cent. in Ireland; in 1871 it remained as nearly as possible the same in England, but had fallen to 27 per cent. in Ireland.

The present age is remarkable for a great absence of originality. It is especially the case with the Teutonic peoples, who confound originality with monstrosity and vulgarity. Nine-tenths of the printed works are simply translations, adaptations, patch-work, and emendations. The original minds, if any, are principally to be found in France and Italy. We learn from Herr Robt. Zimmermann that four-fifths of the comedies presented on the German stage are of French origin, and that the comedies of a single German writer, Roderick Benedix, who died in the present year, now that they are published in a collected form, fill twenty volumes. It is from this author that the English principally manufacture their dramas.

Criticism is nowhere. It is scarcely possible in an age, *par excellence*, of mendacity, hypocrisy, bribery, and corruption. In Spain, Art is

reviving considerably. In Italy Architecture is dead, Music is dying, and the art of Painting is asleep; but Sculpture is reviving. Roumania has made a considerable advance. In France we have not at present such great names as those who have passed away, but in Painting the general level of the school is as high, and perhaps even higher, than it ever has been. Belgium may be also classed under the French school, which has an influencing power everywhere. England, though it possesses some great names, can scarcely be said to have a school of art at all. Nearly all that we can boast of in pictorial art has been the result of isolated and scattered effort. Of late years much has been done by the establishment of schools of instruction to disseminate a knowledge of the principles and practice of art; with what result time only will enable us to judge. In the meantime it may be safely asserted that if English art has not advanced, English artists have certainly increased, and at no time in the history of our country have pictures commanded such high prices and found so ready a market. It may be feared that much of the money thus lavished is spent by Ignorance and received by Incapacity; but if the laws of supply and demand are true, we may hope that as the knowledge of the purchaser increases, so also will his demand for higher art increase, and art be raised to a higher level than it has hitherto obtained in this country. It is very fashionable now-a-days to attribute all art to Christianity, but the greatest productions of painting and sculpture in modern times, have been the result of the study of pagan art; as witness the *Renaissance* period. Except among the Slavs, Hungarians and Orientals, poetry seems to be pretty well dead and buried. G. Popovic says: "There is now-a-days a good deal of literary activity among the Slavonians of Southern Europe, from Laibach to Sofia in Roumelia, and Slavonic literature is to be found even in the centre of the Turkish metropolis." One of the objects of English poets of the present day would seem to be to coin out-of-the-way and inharmonious words to express their ideas. A late writer in the *Quarterly* also observes, "our poets seek to reflect for us the feeling of every age except our own. If poetry is to live, we must have a poetry reflecting our own life and thought."

In France Science progresses gradually; the German scientific men would seem to be more or less employed in collecting large masses of facts and in blundering; whilst the English are occupied to a great extent in the consideration of futile specialties and in professional wrangling. In England Science and Art are in complete antagonism. Does not this to a certain extent account for the decay of Art in England? Is Art possible without Science?

I shall not longer detain you with the consideration of Anthropological events of the present year. It remains for me to hope that the prosperity which has attended our efforts during the year 1873, may be repeated in the forthcoming session. I thank you for the kindness with which you have on so many occasions supported the chair.

PROFESSOR LEITNER, in proposing a vote of thanks to the President for his address, said that it was one of the most interesting he had ever heard. It was very important to compare all the languages spoken by the Sanskritic family, and to get rid of any suspicion of Turanianism. Everything that was not understood was now called Turanian, and at the approaching Congress of Orientalists, a number of heterogeneous languages would be classed as Turanian, a term which he would confine to the languages spoken in Turan. He was perfectly surprised, on his return to England, to find what strides had been made in imaginative philology during his short absence. He was surprised, for instance, to hear that there was no such language as Tchagatai in existence, although he had a manuscript in that language and thought he could read it. A remark had been made as to the dying out of uncivilized races—our feudatory the Maharajah of Cashmere was massacring the tribes around him, and that was how they were dying out. As to the Prussians, he feared their military system was a great obstacle to their mental progress; their intellects never seemed entirely to get rid of the future drill-sergeant; but he thought the cruelties said to have been practised by them in France had not occurred in fact. Slavery was another superstition that seemed to lead people's imaginations captive: he had listened a few nights before to Sir Samuel Baker, who seemed to think he had suppressed slavery on the Upper Nile; but on looking at the reports of the Consuls, he found there was an increase of slavery, and the reason was obvious. Formerly the slave-hunters had to go with such Brummagem weapons as they could get, and fight the natives on equal terms; but since Baker had been there with his soldiers, and annexed part of Central Africa to Egypt, the inhabitants of a number of villages had been brought over in bodies and sold into slavery. So also with Sir Bartle Frere at Zanzibar, who thought he had stopped by "moral influence" that which was necessary to the very existence of Mahommedan households. As to the missionaries, he thought they did a great deal of good, and perhaps a great deal of harm also; it depended on the kind of man who went out, and the kind of men he went to. If a conceited, uneducated man were sent to argue with a very highly cultivated Brahmin, he could not be expected to succeed even with the most excellent intentions.

Mr. CHURCHILL concurred in the high opinions which had been expressed in reference to the President's address, but differed from him upon some points. He would on that occasion mention only one—the bad conduct of the German army in France. From what he had read on such matters and from some inquiries he had made in the country, he believed that no conquests and subsequent occupation were ever attended by so few cruelties and so little plunder. The French gave much provocation by wanton insults after their power of resistance had ceased. When after a fair fight you find your enemy's

sword at your throat, it is imprudent and in bad taste to spit in his face. He had great pleasure in seconding the vote of thanks to the President.

Mr. LEWIS, in congratulating the President on his admirable address, said, in reference to some remarks by Dr. Leitner and Mr. Churchill, that he had been informed by a native of the district, who knew it and the people well, and who had just visited the spot, that the Prussians, in revenge for some acts of the villagers of Bazeilles, had not been content with merely decimating the male inhabitants, which would have been a severe but possibly a justifiable measure, but had surrounded the village, set fire to it, and driven every man, woman, and child, into the flames; he had of course no personal knowledge of the circumstances, but had the greatest confidence in his informant. It was undoubtedly the duty of Christians to send out missionaries; but it was most essential that care should be taken as to the kind of missionary sent, nor was there any foundation whatever for the expectation that the world would become Christianised by preaching.

Mr. GOULD AVERY said :—In the very admirable address to which we have listened there is one paragraph to which I venture to take exception. I refer to that on Christian missions. The learned President will remember that during the existence of the first Anthropological Society, there was a discussion on that subject which extended over two long evenings, and which was conducted with marked ability. The final conclusion was indisputably in favour of the utility and success of missions. I have the pleasure personally to know much of the subject, and to be acquainted with many missionaries, and I entertain no doubt that they are doing a work which cannot but contribute to the benefit and blessing of mankind. I am sorry to appear to offer objection, but I no less thank the President for the masterly address with which he has favoured us.

The thanks of the Society having been voted to the President, the Scrutineers reported the unanimous election of the following Officers and Council for the year 1874:—

President.

Dr. R. S. CHARNOCK, F.S.A.

Vice-Presidents.

Capt. R. F. BURTON, F.R.G.S.	H. B. CHURCHILL.
J. BARNARD DAVIS, M.D.,	T. INMAN, M.D.
F.R.S., F.S.A.	C. STANILAND WAKE, M.A.I.

Council.

H. G. ATKINSON, F.G.S.	J. SINCLAIR HOLDEN, M.D.,
J. GOULD AVERY.	F.G.S.
J. BEDDOE, M.D., F.R.S.	KELBURNE KING, M.D., F.R.C.S.
C. H. E. CARMICHAEL, M.A.,	Prof. G. W. LEITNER, Ph.D.,
F.R.S.L.	M.A.
G. HARCOURT, M.D.	A. G. LOCK.
G. HARRIS, F.S.A., F.R.Hist.	Rev. P. MELIA, D.D.
Soc.	J. BARR MITCHELL, M.D.

Honorary Secretary.

A. L. LEWIS.

Honorary Foreign Secretary.

C. CARTER BLAKE, Doct. Sci.

Treasurer.

JOSEPH KAINES, Doct. Sci., M.A.

The TREASURER proposed a vote of thanks to the Honorary Secretary, which was carried unanimously, and the Honorary Secretary having replied, the meeting separated.

ORDINARY MEETING,

*Held at 37, Arundel Street, Strand, London, Tuesday, 3rd February
1874, at 8 p.m.*

DR. R. S. CHARNOCK, F.S.A., President, in the Chair.

The Minutes of the Meeting of 6th January were read and confirmed.

The following present was announced :—For the library, “Darwinism and Design,” by G. St. Clair, F.G.S., from the Author.

The following paper was then read :—

ACCEPTED IMPOSSIBILITIES.

By H. B. CHURCHILL, Esq., V.P.L.A.S.

Down to the middle of the last century historians, with very few exceptions, contentedly transcribed what their predecessors had

written, and relieved themselves of responsibility by foot-note references to the volume and page from which they had copied.

"I know not what the truth may be,—
I tell the lie as 'twas told to me."

We have become more critical, and have reached that stage of research which shows that the past, though perhaps not absolutely untrue, is misplaced, misdated, and distorted. We put aside miracles as impossible and marvels as unlikely; but we still tolerate a good deal of plain lying, of which I shall give a few examples from history and poetry. I believe it is held that poets, in describing realities, are bound to be as true to nature as historians to fact. Poets of pure romance exempt themselves from this law by not professing to observe it. The heroes of Spenser and Ariosto fight and the blood runs through the joints of their armour till the ground is slippery, and when they have done, sleep on the grass or in an enchanted castle, and are none the worse the next day. But Spenser describes inanimate nature as faithfully as Hobbema and as beautifully as Claude, and Ariosto's knights make love very much as we should do with similar capacities and opportunities. Even in the depth of Faeryland, where a commissariat is unknown, Spenser could not carry extravagance so far as to make a lady travel without luggage. Una's dwarf bears upon his back "a little bag, in which she kept her needments." For my present purpose I class incredibilities under three heads: 1. Miracles; 2. Marvels; 3. Simple lies. The legend of Samson supplies an illustration of each. Samson found a new jawbone of an ass, and with it he slew 1,000 men. After that he was thirsty, and prayed to the Lord, who clave a hollow place in the jawbone, out of which water issued, and Samson drank. The production of water is a miracle for the consideration of theologians; I have nothing to say upon it now or here. That 1,000 men should have allowed themselves to be slain by such a weapon, and that it should not have been worn out by collision with other bones, is among the most improbable of possibilities, but only a marvel. I pass to the third-class.

"And Samson caught 300 foxes, and turned them tail to tail, and put a fire-brand in the midst between two tails, and when he had set the brands on fire he let them go into the standing corn of the Philistines."—*Judges* xv. 3.

Referring to *Doyley* and *Mant*, I find that the commentators support this statement, not as miracle, but as matter of fact. Bishop Patrick says, that though foxes are scarce in Judea, the smaller jackals are not, and though the number seems large, Samson might have used nets and snares, and have been assisted by friends and servants. Bochart refers to Ovid, *Fasti*, iv. 681, for the Roman practice of sending foxes into the circus, with firebrands on their backs, and derives it from Samson. Would not foxes so tied pull in opposite directions and fight?

Ovid tells how a boy of twelve years old, having caught a fox, bound it in hay and straw, to which he set fire, and having burnt his

fingers dropped the fox, which ran into the standing corn, and did so much mischief that the fact was commemorated on the 13 calend of May.

“Filius hujus erat primo lascivus in ævo;
Addideratque annos ad duo lustra duos
Is capit extremi vulpem sub valle salicti,
Abstuleratque multas illa cohortis aves.
Captivam stipula fœnoque involvit et ignes
Admonet; urentes effugit illa manus
Qua fugit, incendit vestitos messibus agros:
Damnosis vires ignibus aura dabat.
Factum abiit, monumenta manent.”

Fast., lib. iv. ll. 701-709.

Yet upon this the Rev. C. Stanford says, see Judges xv. 3.

For the present occasion I shall select a few examples of wounds, and of the courage which retarded their effects. Homer has been praised for his accuracy in describing things as they were in his time, and his knowledge of surgery is celebrated by commentators. (*Il.* Sl. xx. 469.) Alastorides, while clasping the knees of Achilles and begging his life, receives a gash which cuts out his liver. It falls down :—

ὁ δὲ φασγάνῳ δυντα καθ' ἥπαρ'
Ἐκ δὲ δι' ἥπαρ' ὕλισθεν, ἀτὰρ μέλαν ἄιμα κατ' αὐτοῦ
Κόλπον ἐνέπλησεν, τὸν δὲ σκότος ὕσσε κάλυφεν
Θυμὸν δευρόμενον.

Il. xx. 469.

The commentators say nothing about the difficulty of inflicting such a wound, but refer to parallel passages in the imitators of Homer, in which wounded livers are mentioned.

One cannot say whether Pope's objection to close translation was to the impossibility of the wound or its coarseness.

“The ruthless falchion oped his tender side,
His panting liver pours a flood of gore,
Which drowns his bosom till it pants no more.”

But Lord Derby is faithful :—

“Gashed through his liver, as from out the wound
The liver dropped.”

We have skilful anatomists present. Would they undertake to cut out a liver at one blow, even if allowed to arrange the victim before striking?

Lucan, in describing the siege of Marseilles, when weapons ran short, says :—

Multi, inopes teli, jaculum lethale revulsum
Visceribus trasere suis, et vulnera læva
Oppressere manu, validos dum præbeat ictus
Sanguis et hostilem quum torserit exeat hastam.

Pharsalia, iii. 676.

Which May translates :—

From his own breast one draws the mortal pile,
With the left hand holding the wound so long,
To keep in blood and strength, till he had flung
The javelin at his foe, then lets it run.

I need hardly ask my medical hearers to confirm my opinion, that after a soldier had drawn a javelin from his own entrails, he would not be able to throw it with any danger to those of an enemy.

“On lit dans Maffée qu’un soldat Portugais, n’ayant plus de balles, s’arrachoit les dents pour charger son mosquet.”—De Gendre, *Traité de l’Opinion*, i. p. 198.

De Gendre does not state the work of Maffée from which he quotes. Impossibility is nearly approached, unless the soldier was also a dentist, and had his extracting instruments about him. Even then the firing must have been slow and the execution small.

Cynaëgeirus, the brother of Æschylus, after the battle of Marathon, when the Persians were trying to escape, seized one of their ships by the stern, and fell, his hand being cut off by an axe. So far Herodotus; but the story grew. Val Maximus says, that when his right hand was cut off, he seized the ship with his left. Justin beats both, and resolves not to be beaten:—

“Post prælii innumeras cœdes, cum fugientes hostes ad naves egisset, onustam navem dextu manu tenuit, nec prius demisit quam manus amitteret; tum quoque, amputata dextra, navem sinistra comprehendit, quam et ipsum cum amisisset, ad postremum morsu navem detinuit. Tantem in eo virtutem fuisse, ut non tot cœdibus fatigatus, non duabus manibus amissis victus, truncus ad postremum, veluti ut rabida fera, dentibus dimicaverit.”—Justin, l. ii. c. 9, p. 72 (Lugd. Bat. 1701.)

Where did Cynaëgeirus stand when he seized the ship, and what part of it did he bite?

Burnet thus describes the martyrdom of Cranmer:—

“When he came to the stake he prayed, and then undressed himself; and being tied to it, as the fire was kindling, he stretched forth his right hand towards the flame, never moving it, save that once he wiped his face with it, till it was burnt away, which was consumed before the fire reached his body. He expressed no disorder from the pain he was in; sometimes saying ‘That unworthy hand,’ and oft crying out, ‘Lord Jesus, receive my spirit.’ He was soon after quite burnt.”—*Hist. of the Reformation*, iii. 429, ed. 1825.

Hume says:—

“He stretched out his hand, and without betraying either by his countenance or motions the least sign of weakness, or even feeling, he held it in the flames till it was entirely consumed.”—Hume, iv., p. 476; *Notes and Queries*, ix., 392.

The fire was unconfined. Whoever has seen the effect of fire in the open air, must know that the vast quantity sufficient to entirely consume a human hand, must have destroyed the life of the owner, though from a peculiar disposition of the wood the vital parts might have been protected.

Burnet, describing Hooper’s execution, says, “One of his hands fell off before he died, while with the other he continued to knock on his breast some time after.”

At the siege of Constantine (1837), Colonel Combe

“Reçoit le coup mortel. Il le sent, mais ne le temoigne pas, et se survivant à lui-même par l’énergie d’une âme qu’embrase l’amour de la patrie, il ne s’occupe que de l’issue du combat, il assure la victoire, puis, se tournant vers les siens, il leur dit: ‘Ce n’est rien, mes enfans, je marcherai bientôt à votre tête.’ Il se dirige ensuite vers la brèche pour se faire panser; mais il le veut auparavant

rendre compte au commandant du siège du succès décisif de nos colonnes. Il s'avance droit vers lui et lui dit avec calme : 'La ville ne peut tenir plus longtemps ; le feu continue, mais va bientôt cesser ; je suis heureux et fier de pouvoir être le premier à vous l'annoncer, ceux qui ne sont blessés mortellement pourront se rejouir d'un aussi beau succès, pour moi je suis satisfait d'avoir pu verser encore une fois mon sang pour ma patrie, je vais me faire panser.' Ces paroles sont sublimes de simplicité. Le calme avec lequel Combe les avait prononcées ne laissait pas soupçonner qu'il était mortellement atteint. Ce ne fut que lorsque il se retourna pour aller à l'ambulance qu'on aperçut avec une admiration mêlée d'affroi le trou de la balle qui avait percée l'omoplate et traversé le poumon. A cinquante pas de là il tomba en faiblesse."—*Biographie Générale*, xi. 320.

Fielding, the firm adherent of truth to nature, thus describes a duel :—

"The combatants now engaged with great fury, and after two or three passes, Booth ran the Colonel through the body and threw him on the ground, at the same time possessing himself of the Colonel's sword."

On getting up the Colonel said,

"I bleed a little, but I can walk to the house by the water ; and if you can send me a chair thither, I shall be obliged to you.

"As the Colonel refused any assistance (indeed he was very able to walk without it)," &c.—*Amelia*, B. v. c. 5.

I have put together these examples to show that facts, which, if stated as supernatural, would be at once rejected, have been received and transmitted by trustworthy historians. I offer no inferences.

Renan says :—" . . . de son côté était atroce, cinq cents malheureux par jour étaient crucifiés la vue de la ville avec des raffinements odieux ; le bois ne suffisait plus pour faire les croix, et la place manquait pour les dresser."—*L'Antechrist*, p. 506.

Renan does not hint a doubt.

Martinus Scriblerus cites from Blackmore's "Prince Arthur,"—

"Upon the shore, as frequent as the sand,
To meet their prince the glad Dimetians stand ;"

but says, "Query, where these Dimetians stood, and of what size they were." Such a query would dispose of many strange stories. For instance, Milo of Crotona, carried a cow four years old on his shoulders through the Stadium at Olympia, and afterwards ate the whole of it in a single day. Where did he put it ? Was his digestion equal to his appetite ?

The following paper was then read :—

TESTS ADAPTED TO DETERMINE THE TRUTH OF SUPERNATURAL PHENOMENA.

BY GEORGE HARRIS, F.S.A., F.R.H.S., F.L.A.S.

OF the various subjects embraced by the very comprehensive science of Anthropology, those relating to mind are, unquestionably, by far the most interesting, and the most important. And as regards

the numerous topics connected with our knowledge of mind, those which concern the nature and reality of spiritual beings, and the mode of their operation and manifestation, are among the most attractive, although, at the same time, the most perplexing. Indeed, no system of Anthropology, and no society for its investigation, can be considered completely and philosophically to grapple with the subject, which does not include the study of the mental and spiritual, as well as the material constitution of man. Both the physical and the intellectual nature of man ought, moreover, not only to be investigated, but to be investigated together. Neither can be fully understood without the other, and each contributes to throw light on the other.

As I understand the word Anthropology, it is with the living, not with the dead man, that we have to deal. Our object should be to investigate his real nature and constitution, his course of action, and the motives by which he is directed; to illustrate these topics by a comparison of the nature of man with that of other beings; and from the whole to endeavour to elicit some valuable information concerning man, in each department of this important branch of knowledge. An inquiry into the way in which, during certain rude ages of society, man's body was disposed of after he was dead; as to the effect that the clay in which his carcase was laid produced upon his bones after they had been deposited there for a specific period; and even into the quality of the weapons or supposed weapons, which he may have used in his lifetime, and by which his death may have been caused; can hardly be deemed of themselves subjects of sufficient importance to engross the attention of a society which professes to enter upon the scientific study of man; however useful, and even indispensable, some of these topics may occasionally prove, as auxiliary to certain departments of the subject; and proper as they undoubtedly are to form the leading topics of discussion by the projectors of a cemetery company (limited) or the directors of a burial board.

With regard to the immediate subject proposed for discussion this evening, I may remind you that questions regarding the existence and influence of spiritual beings have, in all ages of the world, and in every country, whatever were the character of the inhabitants, whether savage or civilized, commanded the attention and excited the wonder of mankind.

From the influences of superstition very few, even in our day and among the enlightened and well educated, are entirely exempt. The belief in the ill-luck attached to Friday, in a variety of ways, has a secret if not open influence, with a vast number. How many refuse to sit down in a party of thirteen at a dinner-table? Presentiments, too, of every kind are constantly haunting the minds of different people. In what manner are these superstitious feelings excited within us? And whence is the origin of this belief in supernatural phenomena—does it arise from mere timidity, or is it caused by something existing in the nature of man, which influences so many in the same way, and impels each mind in the

same direction? Moreover, if the appearances in question have been observed so frequently, and have had so many witnesses of their occurrence, surely the proof of them ought to be sufficiently solid and satisfactory to assure persons of education and of reason that they do really exist. The main difficulty, however, in an enquiry of this kind appears to be the determination, in a definite and distinct manner, of the proofs that ought to be admitted as sufficient to establish the truth of supposed visitations of the nature alluded to. And this subject I propose as the topic of the present paper.

If visitations of the nature here supposed did actually occur with more or less frequency many ages ago, of which the assertions, if not the proofs, are very numerous, is there any reason to suppose that the order of the world has so changed that they do not exist at all in our day? A general, if not universal, belief in these things, affords some foundation for acquiescing in the truth of them, so far as this general belief implies a number of witnesses of them, and a very extensive, if not accurate, inquiry into the circumstances attendant upon, and which obtained credit for the visitation. On the other hand, the stranger and more contrary to our own ideas and experience is any occurrence of this description, the more decisive and unequivocal will be the proof that should be required to satisfy us of its reality. Has such proof in any well-authenticated case been afforded? And is it possible to reduce the tests here to be applied into a certain order or system, so as to render them applicable generally in enquiries of this kind?

Superstition has revelled here, while science has in vain endeavoured to draw any sound conclusions on the subject. Philosophers, satirists, and poets, have alike found food for the exercise of their various and widely differing powers. Our greatest philosophers have here at least been perplexed, and have been able to afford no certain and satisfactory solution of the mystery. Our poets have been somewhat more fortunate, so far as the subject has served strongly to stimulate their genius. And Shakespeare, so great in poetry, so perfect in his knowledge of human nature, was supreme in his descriptions and characters of spiritual and supernatural beings.

Sir Walter Scott has remarked that the general, or, as it may be termed, the universal belief "in the existence of spirits separated from the incumbance and incapacities of the body, is grounded on the consciousness of the divinity that speaks in our bosoms, and demonstrates to all men, except the few who are hardened to the celestial voice, that there is within us a portion of the Divine substance, which is not subject to the law of death and dissolution; but which, when the body is no longer fit for its abode, shall seek its own place, as a sentinel dismissed from his post."*

It is, however, the province, as it is the end, of reason, to subordinate to its authority the impulses of the imagination, as also to cor-

* Scott on Demonology and Witchcraft, p. 4.

rect the impressions of the senses. On the one hand, no case of a supposed supernatural visitation ought to command our belief until after a calm survey of the evidence, and a severe exercise of the reason upon the facts adduced in its support. On the other hand, no case of this kind ought to be condemned, and rejected as false and unfounded, which, after a strict examination of the evidence in support of it and a severe exercise of the reason upon those facts, appears fully entitled to credit. We should approach the subject calmly, dispassionately, and free from prejudice; although the opposite course appears to be the fashionable one, and that which has been generally adopted. Facts only should be allowed to guide us. Truth alone should be our aim. That the belief in a vast number, indeed the great majority, of these visitations is the result of credulity, deception, disease, or superstition, cannot be doubted. But whether some of them are not entitled to more consideration, is a grave question, well deserving the attention of the philosopher, and above all, of the Anthropologist. The main argument, indeed, after all, if such it is entitled to be called, which has been adduced against the reality of supernatural visitations of any kind, is that a good many apparent phenomena of this class have turned out to be mere impositions on credulity, or the result of disordered sensation or imagination. Now, I not only admit to the full the fact of these false pretenders to the supernatural, but I could relate to you a great number of anecdotes respecting them. This circumstance, however, appears to me to be really of no avail to disprove that there have been instances of genuine supernatural visitations as well.

The very important question then arises whether there are not certain tests which may be fairly applied to prove the reality or the falsehood of these visitations; and, in the next place, what ought to be resorted to and admitted as proper tests for this purpose? Few topics are more interesting than that which is now submitted to your consideration, or more worthy of the attention of the philosopher, and especially of the Anthropologist.

Subjects of this kind have, indeed, already and several times occupied the attention of men of distinguished scientific acquirements, but I am not aware that any systematic attempt has hitherto been made to specify, or define, or classify these tests. If we can succeed in the attempt, or make any reasonable progress towards its accomplishment, we shall do no mean service to the cause of science in one of the noblest of its departments. Something will be attained, and that of no mean importance, if we can only agree as to some satisfactory tests that may be applied. A foundation for our proceedings will, at any rate, have then been laid, and future operations may be directed, both to test its soundness and to render it more secure. It is no slight matter on entering on any great undertaking to have decided on a definite plan of action, more especially in a case where nothing of this kind has been attempted before.

Sir Walter Scott's very able and most interesting treatise on

“Demonology and Witchcraft,” by some persons considered the best of all his performances, and Sir David Brewster’s admirable work on “Natural Magic,” are known to all of you. De Foe has also touched on this subject; and a writer, who ordinarily discussed topics of a very different nature to those of the authors whom I have mentioned, the famous English nonconformist, Richard Baxter, wrote a very remarkable work called “The Certainty of the World of Spirits, fully evinced by Unquestionable Histories of Apparitions and Witchcrafts, Operations, Voices, &c., proving the Immortality of the Soul.” It contains a very extraordinary narrative of different ghosts and apparitions which had been seen in his day, and the accounts of many of which were communicated to him by the persons who believed that they had seen them. Of some of these strange sights he tells us that he was himself an eye-witness. In the preface to his book he says, “Finding that almost all the atheists, Sadducees, and infidels did seem to profess that, were they but sure of the reality of the apparitions and operations of spirits, it would cure them, I thought this the most suitable help for them that have sinned themselves into an incapacity of more rational and excellent arguments.”

Under the somewhat comprehensive term, “supernatural phenomena,” may, I think, properly be included the following real or supposed appearances or communications of a spiritual or supernatural order: 1. Ghosts or apparitions, including the visible appearance of some spiritual being. 2. Supernatural communications, including voices or sounds of different kinds, supposed to convey intelligence; as also what are ordinarily termed “spirit rappings.” 3. Dreams in which some supernatural communication is supposed to have been made. 4. The asserted phenomena in our day termed “table turning.”

Cases of each of the above kinds are so numerous, and are so well known to all who take any extensive interest in the subject, that it is unnecessary to detain you by any detail of them on the present occasion.

1. With respect to the case of apparitions, I will venture to lay down that the mere circumstance of a person, however truthful he may be, saying that he has seen a ghost, can be admitted as no positive proof of the fact, inasmuch as the senses are constantly liable to be deceived; and disease, more especially of the digestive organs, has been productive of endless delusions, to say nothing of the attempt at imposture, and the effects wrought by superstition and a disordered imagination. Many a stump in the twilight has been mistaken for a spectre, and gaseous, luminous exhalations in graveyards have frequently passed current for apparitions of the spirits of those who there lay interred.

As regards, therefore, the tests applicable to the reality of an apparition which has been asserted to have been seen by any person, the following principles may be laid down:—When such an apparition is said to have been heard, as well as seen, this is some, although not conclusive, proof of its reality, as it is less likely that two of

the senses should be out of order, or should at once deceive us, than that only one of them should be in that condition. Besides, what is the use of a ghost appearing unless he has something to say, and to the purpose of his visit? So, also, when the apparition is said to have been seen by two or more persons, instead of by one only, and on separate occasions, there is, of course, a much stronger ground for believing the story than if one individual only said that he had seen it; not only because two witnesses are in every case better than one, but for the still more satisfactory reason that two or more persons are not likely to be at once labouring under false impressions of the senses, or a disordered imagination. In all these cases a great deal must, of course, depend on the character, state of mind, and condition of health of the parties. So, also, the time at which the apparition presented itself may have some influence in determining the credit to be given to it. An apparition seen at mid-day would command considerably more belief than one witnessed at midnight. If, again, an animal—a dog, for instance—accompanying the person who sees the apparition, gives token of the presence of some supernatural being, either by its cries, or by exhibiting unusual symptoms of terror, as is alleged to have happened in some avowedly well-authenticated cases of apparitions, this must undoubtedly be regarded as a strong additional proof of the reality of its appearance, and that no mere illusion of the senses occasioned a belief in its existence. If, moreover, other individuals, and those persons of character and intelligence, are consulted at the time about the supposed appearance of a ghost, and are convinced of the sincerity of those who assert that they have seen one, this may be considered as a strong corroboration of their testimony.

Another decisive confirmation of the reality of a supernatural visitation of this kind, is when some important fact, with which the person who narrates the circumstance could not have become acquainted in the ordinary course of things, is communicated by it; as in the case of the intelligence of the death of some one in a foreign country at the moment when the apparition presented itself, the detection of a murder by announcing where the body lay concealed, the discovery of hidden treasure, or the foretelling of an important event, which actually happens in the precise way predicted.

With every respect for the great ability and scientific attainments of Sir David Brewster, I must beg leave to question the accuracy of one test which he recommends to be applied in order to ascertain the reality of an apparition, when he directs the person seeing it to lift his hand between his eyes and the supposed ghost, when, if the view is not intercepted by it, he says that he may conclude that the spectre is a delusion.* Such a test as this is, no doubt, applicable to prove whether a mere delusion of the sight exists or not, but it does not extend beyond that; inasmuch as, in a case of this kind, it must be inferred, according to the nature of spiritual phenomena, so far as we are acquainted with them, that the soul itself, directly,

* Letters on Natural Magic.

and not the more material eye, it is that perceives the apparition, which is, in fact, but another, although a disembodied, soul, and so visible only to the soul, and that directly, and not through the bodily organs.

There is one very remarkable and well-known case of an apparition, to which the principles for testing its reality which I have laid down may be fairly applied. I allude to the story of the ghost of the father of the Duke of Buckingham, as related by Lord Clarendon. Although the spectre was seen by only one person, yet to him it appeared several times, and he seems to have been a man of credit, and communicated what he saw and heard to the person to whom he was desired to mention it. And the information afforded by the apparition, both as regards the private matter relating to the Duke, and the prediction of his death by violent means, could only have been communicated in some supernatural manner. The narrator of the story, Lord Clarendon, was not, moreover, at all inclined to be superstitious or credulous, although living in an age when such stories commanded much more belief than they do at present.

2. With regard to supernatural communications through certain noises, by means of which intelligence of an important kind which could not be conveyed in any other way, is supposed to be obtained, the ear is the organ here exerted, whether voices, or what are termed spirit rappings, constitute the medium employed. Of this class also are the sounds which are supposed to indicate the fact of a house being haunted. Perhaps no organ is so likely to be mistaken as is that of hearing; besides which, it obtains in the case supposed, no aid or correction by means of the other senses. It is also subject to disease, by which its functions become deranged, and wrong impressions are in consequence communicated. In several supposed cases of visitations of this kind, the person who believed that he heard them has been half asleep; in others, he has been suffering from inebriety or delirium. Superstition and a fertile imagination will do much to excite his mind in such a case, and what was in reality but a natural and ordinary sound, is mistaken for one of a supernatural character.

The tests which I should submit as applicable to solve the truth of the communication, and to prove whether it is supernatural or not, in such a case, are whether the communication is one of an important and extraordinary nature, such as the death of a relative or friend, at that moment, who was then a thousand miles distant. Also, whether the communication, if it was in the nature of an important prediction, proves true by its subsequent fulfilment. And, again, whether in some cases of knowledge being supposed to be so communicated, it might not have been obtained in some other way, and afterwards the person may have fancied that he derived it through the supposed communication. If, however, several persons, instead of one only, have heard the sound, and these are people of credit, it is, of course, entitled to considerably more belief than if one individual only had heard it.

In the case of a supposed haunted house, some proof of the fact should surely be afforded beyond the mere noises themselves, even if these are heard by several persons; as they may be, and often have been, occasioned by natural causes, or be the result of artifice.

3. In all ages of the world, and in every country inhabited by man, dreams have been peculiarly regarded as of a supernatural character, and a means whereby communications are made to the soul of intelligence which it could not have received in the ordinary mode. A wide field of superstition has no doubt been opened here, and many dreams which have been regarded as of a very important and supernatural character, if all the circumstances relating to them were closely inquired into, will be satisfactorily proved to be of a very ordinary nature; and the supposed revelations made by them may be shown to be nothing more than the passing thoughts during sleep connected with transactions which have lately engaged our attention. Indeed, especially among the ignorant and credulous, there is no topic so liable to the influence of superstition as that of dreaming; and the very vividness of the dream, so far from its affording proof of its being of a supernatural character, may be conclusive evidence of the disordered condition of the mind and body of the sleeper.

That all communications through dreams are of this ordinary character I am, however, far from asserting. What, then, ought to be admitted as tests of the truth of visitations so experienced? I would submit that one main test in a case of this kind is whether the facts communicated are such as could not have been known in any other way, as where a murder is discovered by the place of concealment of the body being pointed out; where some gross fraud, which could not otherwise have been unravelled, is revealed by the dream; or where some concealed treasure is made known. So also if some important prediction is made by a dream which comes to pass some time after exactly as pointed out; as, for instance, the death of a person by accident or violent means; this may surely be regarded as some proof of the real and supernatural quality of the communication.

In the case of a dream, its repetition has always been regarded as some proof of its being out of the common order. This is, however, of itself alone, but an unsatisfactory test as to its supernatural quality.

4. As respects the evidence which ought to be required in those cases of which we hear so much in the present day, and which are classed generally under the name of spiritual phenomena, we may, I think, fairly and reasonably require that the following conditions be complied with as regards the appearances observed at a *séance*, in order to convince us of the reality and supernatural quality of the manifestation in question:—

1. In the case of motions of material substances being produced, we should be entirely satisfied that they really occur, and that no delusion on our senses is being practised. So also in the case of sounds.

2. We should also be satisfied, supposing that we are convinced of the reality of these motions, appearances, or sounds, that no artificial contrivances, which are common in many cases of this sort, have been resorted to to cause their production.
3. In all cases of supernatural phenomena, we may reasonably expect that some real and tangible results should be consequent on the manifestation, such as a communication which could not otherwise have been made, a revelation of facts which could not otherwise be known, or a prediction of events which actually come to pass.
4. In the case of inquiries being made during a *séance*, where these are either not answered at all, or only vague, or dubious, or evasive replies are given, this may surely be deemed to negative the supernatural quality of the whole proceeding. Still more so when the replies given are proved to be false.

Lord Amberley well remarks, in a recent article on spiritualism, in the *Fortnightly Review*,* as to the general conduct of these inquiries—

“It is an indispensable condition that those who conduct experiments of this kind should be as free as the constitution of the mind permits from theories formed apart from facts; that they should be influenced neither by professional interest nor by the desire to astonish; and that they should scrupulously guard against bias, either favourable or unfavourable, to any given results of their inquiries.”

With regard to the conclusions to be drawn from the whole, and an impartial examination of a variety of cases of each kind of the several descriptions alluded to best deserving of a careful consideration, and applying to them the principles for testing them which I have laid down, it appears to me that the great majority of the instances of supposed ghosts and apparitions, and visitations by voices or noises, as also by dreams of a supernatural order, arise either from disease or delusion of the senses, disordered imagination, superstitious feeling, or imposture; but that, after making a large and liberal allowance for the occurrence of cases of this description, there are, nevertheless, if these may be determined by the tests which I have proposed, unquestionably some actual, undoubted, and well-established cases of real ghosts and apparitions, and of supernatural visitations and communications by means of voices and dreams, the souls of departed persons being permitted (for what purposes and on what occasions it is vain for us to attempt to discover) to present themselves before certain individuals living upon the earth, and to communicate to them certain facts of importance with which it is desirable that they should be acquainted.

We should, moreover, here bear in mind that, although a hundred cases of delusion or imposture will not serve to prove that there are no real cases of supernatural visitations, one case

actually and conclusively proved of a supernatural visitation will serve absolutely to establish the existence of the order.

The ingenious author of "The History and Reality of Apparitions," which has been ascribed to De Foe, concludes, however, that the spirits of the departed are never permitted to appear on earth; but that whenever an apparition is seen, the possibility of which he quite admits, he supposes it must be either an angel or a devil assuming the shape of such departed person. Such a theory as this is, however, surely far more improbable than the supposition of the real appearance of the spirits themselves.

One person who contended against the reality of ghosts, urged that the accounts given of them describe them as very unreasonable in their conduct; and he suggests that, instead of troubling private persons about their affairs, they ought to go at once to the magistrate of the district and lay their complaints before him. But, if such a course were to be followed, I fear that very few persons would like to be in the Commission of the Peace. The unpleasantness of being liable to be constantly disturbed at night, to say nothing of the disagreeable character of the disturber, would effectually deter all timid, nervous persons from acting as justices. Some complain of the sudden, unceremonious manner in which it is the habit of ghosts to disappear, without any formal leave-taking. But this is surely a little unreasonable in those who object to their appearance at all, and who ought, in all fairness, to be the better pleased the quicker they part company. As ghosts do not require to be shown down stairs, or even to have the door opened for them, but are able to vanish through the wall, I see no reason why they should not go away as abruptly as they do.

De Foe, too, is I think rather hard upon the poor ghosts—who would find it a difficult task to satisfy everybody—when he says that, if they reveal some treasure occasionally, they ought at once to discover all the treasure which they know is lying hidden; in fact, that they are morally bound to make a clean breast of it, as regards the secrets of this nature of which they are in possession. Surely, however, if they felt called upon to undertake so vast a work, they would have enough upon their hands, and nobody offers to pay them the smallest trifle for all their labour. It seems to me, indeed, that the ghosts have acted, on the whole, very fairly and creditably in the matter. They have generally discovered treasure when some good or important object was to be attained by doing so; and, when this was not the case, they have very properly and judiciously let the treasure lie, so that, at least, it will do no harm, if it does not do any good to any one.

Among the early fathers of the Church, Origen conceived that souls tainted with the guilt of flagrant crimes, and not purged from their impurity, were either confined in a species of limbo, or attached to particular parts, where, within certain limits, they might ramble about at will. Athanasius maintained that souls, when they were once released from their bodies, held no more communion with mortal men. Augustine, however, remarked, that if souls did

actually walk and visit their friends, he was convinced that his mother, who had followed him by land and by sea, would have shown herself to him, in order to inform him what she had learned in another state, as well as to give him much useful advice. But surely her not doing so was no conclusive argument against the reality of apparitions. The good old lady might naturally, perhaps, have thought that she had done enough already for her son in the way of attending upon him, or she may have considered that he did not require her advice. Possibly she may have found something better to do, or she may not have been permitted to visit him as he expected.

It appears to me that for many ages in the earlier part of the world's history, mankind were too much inclined to superstition of every kind, and to be looking out for spiritual manifestations, and for supernatural visitations; but, in the present age, it can hardly be denied that they have gone as much into the opposite extreme, possibly from the reaction caused by a consciousness of the folly of the former proceeding, and that they are now a great deal too much disposed to regard material objects only, and the influence and operation of matter, and to disregard wholly whatever has to do with spirit and its manifestations. Hence, too, the prevalence of materialism so common among us. We think only of the body, and what is visible; we disregard and neglect the soul, and whatever is not perceived or tangible. I will not hesitate to express my conviction that a total disbelief in supernatural visitations of any kind is as irrational and unphilosophical, as the extravagant credulity with regard to them entertained by our forefathers two hundred years ago. They exalted every mere shadow into a spiritual apparition; we degrade every being of this sort into a mere shadow.

Whatever opinion may be entertained on the subject before us, there is, doubtless, none of a deeper or more thrilling interest, or which opens a wider or more exciting field for discussion. It is a question which has constantly been debated since the world began, to which the attention of the wisest and the acutest has ever been called, but which appears to be as far from solution now as it was when the subject was first opened. All that I have ventured to aim at is to lay down some general principles on which an examination into the matter ought to proceed, leaving it to others to mature the plan, and to follow up in the completion of what I have commenced. I desire only to act as a pioneer in this great field of enquiry. May I express a hope that the attention of men of science, of real Anthropologists in the highest and truest sense of the word, will be turned to this very important and interesting theme, and that some definite result may at length be attained through their efforts. On all topics of this nature differences of opinion must almost necessarily exist; but these very differences should only the more excite us to enquiry, and to make all due efforts to arrive at the truth. Difficulties and discouragements there are, doubtless, in the way; but what grand achievement was ever effected without a struggle of

corresponding proportions? A noble arena is here open for philosophical investigation. The theme, moreover, is one peculiarly within the province of Anthropology, and in the highest department of the science. Carry out this investigation in a manner worthy of its importance, and the result will not fail to be attended with corresponding success. It is alone by attention to the more exalted branches of the subject, that Anthropology will be enabled to assume its proper and legitimate position among the sciences, as that which is the most intimately connected with man; and be at once acknowledged as entitled to the first consideration—as the highest, the noblest, the most important, and the most intellectual, of them all.

DISCUSSION.

The thanks of the meeting having been voted to the Authors,

PROFESSOR LEITNER, Ph.D., M.A., said that he thought that the charge had often been brought against the Anthropological Society that it took extreme views on the subject of religion, but an answer to that charge had been practically given in the paper which had just been read, which was reverent and enthusiastic; he therefore spoke of it in words of praise, without committing himself to any of the views of the author, or approving his methods of investigation. He was glad when Mr. Harris deprecated flint implements, but his surprise was great when he heard demonology introduced as one of the chief branches of Anthropology, and as connected with Anthropology in its truest and noblest sense. It was satisfactory to know that in this society such views would get a fair hearing, but Mr. Harris very much represented a voice from the other world; candour like his would have been good in the Middle Ages, when his tests also would have been very useful, for no doubt they would have helped to abolish superstitions much sooner; but to hear at the present time the question raised whether we shall inquire into the supernatural—when it had long ago been settled that there was no supernatural, that supernaturalism was inconceivable, and that the word involved a negation of terms, because if on enquiry there was found out the existence of laws of nature that they were not yet acquainted with, these would cease to seem supernatural and become natural—when such things were heard, it was a matter of surprise to him, but also of pleasure; in fact, it was a great and new pleasure to him. Once upon a time there was an honest judge, who before condemning a witch because a black cat had been seen entering her room at midnight, tried very carefully to find out whether the cat *was* black and *had* entered the room as stated, and after a most thorough investigation he came to the conclusion that a black cat had walked into the room; consequently he ordered the person to be executed. It was curious that

such views should still exist, that it should be supposed that Anthropologists really ought to have anything to do with such matters, and that men should really exist who suggest that these subjects should be taken up. If so they ought to add to the tests proposed by Mr. Harris, those of chemistry, physics, and all branches of science as well as that of law. The thing was absolutely beyond the scope of a scientific society, which ought to forfeit its name if it took the subject up, since if it once recognised the reality of the supernatural, the realms of science would have been left behind, and they must go for information to wizards and priests.

MR. GRAZEBROOK said that he thought the society was not in a position to say that certain things did not exist. Were they able to define the life or soul of man, or to tell how the soul worked? If they could not understand these things, then they ought to approach the unknown with respect, for there were many instances of communication with another world which could not be gainsaid, although tens of thousands of other cases might be due to disease of the mind, or to intoxication. Many of the laws of nature were known to them, but there were plenty of laws which they did not know nor understand; they were only on the threshold of knowledge. He said this with all deference to the important discoveries which had been made by science. In speaking upon the powers and possibilities of the spirit, they were all at sea, and when spiritual manifestations took place, the particular points relating to them ought to be carefully examined; if they proved to be natural, then the difficulty was solved, but if they found something beyond themselves, then it was only honest that gentlemen should admit that there was something in the universe which they did not understand. Not only were visitations from beyond the grave spoken of by tradition, but in our own time men of science and others had stated facts which seemed beyond all explanation. The evidence about the appearance of apparitions in distant places at the moment of the death of the individual was very strong. He knew of a wife who possessed a subtle intelligence somewhat common amongst women, whereby they know or have an idea of what is going on in distant places, and he had himself met such instances and could testify to them; yet he was a cool, and calm, and logical thinker, and after allowing for coincidence and chance over and over again, facts remained which he could not account for. There was something belonging to our higher nature which told us that after we parted with our material bodies, we might be able to travel with the force of will, and scientific men should not close their eyes to the possibility of such facts, but approach them with modesty, criticise, examine, discover, and find out. Years ago mesmerism ought not to have been left to quacks, for at the present time it was acknowledged that men have power over each other as regards their nervous systems. He believed that it was possible for a departed wife to appear to her surviving husband when it was necessary for his welfare, whilst those who said that it could not be, defined the limits of nature's laws. It was said that the ghost, not having sub-

stance, could not make an image on the retina, consequently there could be no ghosts but those of the imagination; but that was but speculation. Mr. Harris's paper dealt with great problems of which men of science knew nothing, and they ought to approach the unknown with reverence.

MR. J. JEREMIAH, jun., M.A.I., was astonished that there had been no reference in the paper to the researches and conclusions of Dr. Carpenter and Miss Frances Power Cobbe upon Unconscious Cerebration and to the able work on "Primitive Culture" by Mr. E. B. Tylor. Many of the former would materially help to explain by *natural* causes many of the so-called facts of spiritual manifestation mentioned by Mr. Harris. In looking at the most complicated psychological phenomena of the present day, which may yet remain to be completely explained, one cannot resist the question, that if such are to be considered as *natural*—and which he does not deny—how are we to avoid eliminating the alleged miracles mentioned in Holy Writ, and including them in the same category? Further, how could we say, "*These are miracles, and these are not miracles*"? The word miracle appears to be but a measure of our ignorance of natural causes, preceding *natural* effect. He raised this issue reverentially and not to offend any person present. When they looked upon the human race as merely one portion of the animal kingdom, it seemed to him that man had been continually searching after the ideal of goodness; and in this search, savages and others have and do give forms of expression to their *ignorance*—at least, sometimes it was called ignorance and sometimes religious enthusiasm, according to the degree of the civilization of the various peoples:—but they seemed to all come from the dreams of the human mind in its attempts to unravel the incomprehensible in nature. Savages were uncultured, and continually saw apparitions; and as they became civilized, many old superstitions were given up, and new ones appeared, but of a higher kind. Man continually projects his mind forward, and then in come the superstitions; but civilized persons having a larger and more accurate knowledge of nature, these waifs of the imagination shift and turn, and by a process of selection only those survive that either reflect the present limits of knowledge or become effete and tolerated and cherished as memorials of "*the good old times*." The result of such process must in the main, and with the majority of unthinking people, be of a beneficial nature, except in cases of absolute modern trickery. Thus the phenomena of nature, which man cannot comprehend, have the effect of uplifting the human mind, and allowing it to expand, unhampered by carnal or worldly considerations.

MR. CHURCHILL was not disposed to make any distinction between natural and supernatural evidence, or to admit the truth of an apparition without cross-examining the witness who saw it. He had never met with such a witness, though the stories often came from persons of honour and veracity. Ghosts in modern times always appeared dressed. Had coats and breeches souls as well as their wearers, or were they made in the spiritual world by spiritual tailors?

MR. A. L. LEWIS said that Mr. Harris's paper did not go into the question whether supernatural beings exist ; it merely told them how to put salt on the tails of the ghosts if they appeared. He hoped that Mr. Harris would make a further communication to the society ; he concurred generally with the paper, and with most of the observations made about it. There had been much evidence (of a kind) in favour of supernatural occurrences, and it was unscientific to say that such things could not be ; he had never seen anything supernatural himself, but he knew people of high character who said that they had seen such phenomena, and under such conditions that it was very difficult to suppose they were mistaken ; he therefore particularly desired to see the subject investigated in a scientific and perfectly fair manner, without any previous conclusions being brought to bear upon the question. At the same time he protested against being supposed to express any view, for or against, the truth of "Spiritualism," or whether it was an imposture or not ; he merely waited for evidence. Referring to Mr. Churchill's first paper, saying how loose statements had been made the theme of history, poetry, and science, he thought that in some respects he had been a little too sceptical.

DR. CARTER BLAKE had every feeling of pleasure that the subject had been brought before the society, as it was impossible to hush it up with contemptuous silence. If Spiritualists had any real evidence to adduce, why did not they bring it before a committee appointed by the society ? He, for one, would give a fair field and no favour to any statement of facts. He dissented from Dr. Leitner's approval of the present century as the most intellectual. The substitution of the Baconian for the Aristotelian method of enquiry had led to the accumulation of a host of worthless facts, of which the present state of English anatomy showed many instances. He hoped that the most rigid tests would be applied to any so-called "super"natural phenomena ; but we must guard ourselves against the notion that we have solved any of the problems concerning mind and matter.

The PRESIDENT remarked on Mr. Churchill's paper that if Samson acted as reported of him with regard to the foxes, he could scarcely be considered a true descendant of the hunter Nimrod. As to the possibility of the anecdote, there would probably be some difficulty in catching 300 foxes, as those animals are not usually taken alive. In Psalms, where the same word is used, David says, "his enemy shall be a portion for foxes ;" and it is probable that in both cases "jackals" are intended. Foxes do not eat dead bodies, which are, however, a favourite repast of jackals. Again, jackals, as well as foxes, are very common in Asia Minor, and the Hebrews and other Oriental peoples appear in common usage to have confounded the two. Indeed, the Hebrew *shual* or *shuol*, rendered "fox," seems to be derived from the Persian *shagāl*, a jackal (from the Sanskrit *shatgal*). It might also be noted that this word *shual* is found in several local names in the Scriptures, as "village of *Shual*," "land of *Shual*," where it would better translate "village or land of the jackal" than "village, &c., of the

fox." We have also its plural in "land of Shualim." According to some writers, however, *shual* means "sheaves of corn," but this is not probable, especially as the Hebrew has two other words to denote a "sheaf of corn." This notion may have arisen from the fact that the Arabic has *shugal* for "corn ricks;" and that as *shual* or *shuol* might corrupt from the Persian *shagāl*, it might also corrupt from the Arabic word. It is, however, a curious fact that in Isaiah the word for "tail" is used to denote the end of a fire-brand ("two ends of fire-brands"). In connexion with the subject of the second paper might perhaps be mentioned the prejudice to sitting down to a meal composed of thirteen persons, a prejudice no doubt much more common on the Continent than in England. It is the general impression that it originated in the number of those present at the Lord's Supper. Some however assert that one out of thirteen is the death average mortality within a year. But if one in thirteen will die within a year, *à fortiori* will one in fourteen? But this by no means agrees with the returns. In England, at all events, the average mortality for the last ninety years has probably never exceeded one in forty.

MR. G. HARRIS, in reply, said he did not appear before them as an advocate of Spiritualism, as the title of his paper showed, but merely as an advocate for a full and fair enquiry into the truth of supernatural phenomena generally. Whatever might be said about our ignorance of spirit, our ignorance of matter and of science connected with matter was almost as great, and as regards the essence of either equally profound. Reference had been made to the progress of anatomy, and of medical science; and yet, not a year ago, seventeen persons were certified by medical men to have died natural deaths who were afterwards conclusively proved to have been poisoned. In one of these cases it had not even occurred to the medical man who investigated the cause of death, to pursue the apparently obvious mode of detecting poison, an examination of the contents of the stomach. Professor Leitner had compared him (Mr. Harris) to an angel. But there were unfortunately angels of darkness as well as of light, and when the learned Professor proceeded to touch on the dismal subject of demonology, he (Mr. Harris) presumed that he was doomed to be ranked among beings of the darker class. Professor Leitner, in rather a Johnsonian style, had laid it down that "there was no such thing as the supernatural," and that, although he appeared to believe in angels, at least if he believed in him (Mr. Harris), there were no such things as spirits. That such things do exist, some of the most learned and scientific and thoughtful men that the world ever knew had entertained an opinion. Against that opinion no argument had been offered by the learned Professor, but simply his own *ipse dixit*. All that he (Mr. Harris) asked for, was to have the subject investigated fairly, fully, and scientifically.

MR. CHURCHILL, in reply to remarks on his paper, said the President had mentioned the various meanings of the word rendered as 'foxes.' That of sheaves of wheat was clearly untenable; as, however tied, Sampson could not have made them go into the standing

corn. For the present purpose one animal with a tail was as good as another. Jackals are gregarious, foxes solitary; so the former might be more easily caught; but the Septuagint said "*ἀλώπεκαζ*," and the Vulgate "*vulpes*;" and the Seventy and Jerome probably understood Hebrew as well as any existing scholars. He had referred to the translation into nearly all the European languages, and all had "*foxes*."

The meeting then separated.

ORDINARY MEETING.

Held at 37, Arundel Street, Strand, London, on Tuesday, 17th February, 1874.

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

THE Minutes of the preceding meeting were read and confirmed. Election announced:—Philip Sayle, Esq., F.S.S., F.R.H.S., as Fellow and Member of Council.

Presents announced:—For the Library—Proceedings of Paris Anthropological Society (current No.), from the Society; Proceedings of the International Congress of Prehistoric Archæology, 1868, from C. H. E. Carmichael, Esq., M.A., F.R.S.L.

The thanks of the Society were voted to the donors.

The Honorary Foreign Secretary read the following letter and paper:—

A WORD TO THE READER.

This paper, or rather lecture, though forwarded to the Anthropological Society before the end of the last year (1873), has only just seen the light. The reason, I am assured, is the scanty patronage extended to our young Association, which deserves much for doing hard and honest work. We have adhered to our ancient platform—holding nothing human alien to our study, and sedulously avoiding the favourite groove which runs Anthropology into Palæontology. Why Psychology, for instance, should be forbidden to the anthropological student we are at pains to understand, and we are certain that its absence does more harm than good. We are ever ready to extend the hand of friendship to all misguided men; at the same time, we refuse to see a noble expanse of science narrowed into the field of stones and bones. And although we write without other object but that of being useful to the public, we require funds for printing in a collected form what would be dispersed if offered to the publishing market. Is it too much to hope that a greater measure of encouragement will be dealt to us?

RICHARD F. BURTON,
Vice-President.

Trieste, October, 1874.

NOTES ON THE CASTELLIERI OR PREHISTORIC RUINS OF THE ISTRIAN PENINSULA.

By CAPTAIN R. F. BURTON, Vice-President London Anthropological Society, H.M.'s Consul, Trieste.

PART I.—PRELIMINARIES.

WITH great pleasure I propose this subject to my fellow students of the London Anthropological Society and to the readers of our young ANTHROPOLOGIA. The very existence of the Istrian Castellieri is, I believe, as yet a secret to England. Indeed, the well-known authority on "Rude Stone Monuments," James Fergusson, writes to me as follows :—

"So far as I know, nothing is known of your Castellieri. A description would be interesting and important, as showing that they are or are not connected with the Nurhags of Sardinia, or the Torri dei Giganti of Malta and the Balearics. The Mediterranean Islands, in fact, contain many stray antiquities, of the origin of which we know nothing, and we must wait till congeners are found for us on the continent of Europe."

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At the northern extremity of the Adriatic Gulf (*Mare Superum*), where ends the watery channel representing the throat of the Mediterranean mouth, lies a little triangle of land, in shape much resembling a uvula. This is Istria. The exact dimensions and limits of the little peninsula are 116 kilometres from the northern base line (N. lat. $45^{\circ} 33'$) to the southern apex, the flattish lump, known as Punta de Promontore (N. lat. $44^{\circ} 46'$): 49 kilometres expresses the greatest breadth from the eastern flank Monte Maggiore (E. long. G. $14^{\circ} 15'$ in round numbers) to the port and acting capital, Parenzo, on the west (E. long. G. $13^{\circ} 35'40''$). The extensive sea-board covers 193 linear kilometres, and the land frontier 99, running from north-west to south-east. The whole peninsula measures 274 and the area 3,410 square kilometres;* the parallel of N. lat. 45° passing through it. With a sea frontage nearly doubling the land frontier, and with an average altitude of a thousand feet above the sea, Istria enjoys a delightful climate, except in the rare spots where the redoubtable Bora (Boreas), the gift of the frigid Carso and—the Save Valley, attracted by the warmer air of the Adriatic Gulf,—invades the genial lowlands. Its choice position must have rendered it, in early times, a fit habitation for uncivilised man, who would naturally prefer it to cold and sterile Krain or Carniola, locally called Cragno, its limitrophe to the north-east and east. The neighbourhood of the sea supplies its coast with winter rains, while the calcareo-cretaceous formation, which discharges its drainage through crevices and hollows

* P. 10, "L'Istria sotto l'aspetto fisico, etnografico, amministrativo, storico e biografico. Studio di Amato Amati e di Tomaso Luciani. Milano. Dottor Francesco Vallardi, Tipografo-Editore. 1867."

into the sea, where fresh-water springs, locally called "Pole,"* or "Polle" abound, subject the interior to summer droughts. These will be remedied by enforesting and by extending the cistern-system of Venice and the *tulābs* or tanks of Hindostan.

Fazio (or Faccio) degli Uberti, in his poem the "Dittamondo," iii. 2, justly says:—

"Ed Istria vidi come nel mar cova."

"And Istrian land I saw brood o'er the sea."

The late Dr. Kandler, of Trieste,—concerning whom more presently,—describes his natal country as follows:—

"He who looks upon this region from the seaboard admires the regular and beautiful forms of the highlands, the feracity and the glorious vegetation of the lowlands, the number and safety of the roads and harbours; nor has he any difficulty in understanding the high praise lavished upon it by Cassiodorus, (Nat. circ. A.D. 468,) who wrote from Ravenna. On the other hand, those who enter it from the interior, compelled to traverse a succession of ground waves, whose northern slopes are not unfrequently naked and sterile; wearied and confused by the multitude of tumultuous shapes, find every feature presented to the worst advantage. Unable to perceive the general plan, they harsh-judge the country; according to them, the coast, harbours, the rich vegetation of the shores, the smiling fields, the frequent towns, and the monuments of antiquity, are so many accidents which fortune has cast like waifs and strays upon its coast."†

Thus we have a complete contrast with the Libanus and the seaboard of Syria and Palestine, whose beauties must be beheld from above: those who cruise by the "Holy Land" see little but steps of dry wall, supporting in endless succession the several terraces, and effectually concealing the rich vegetation which they defend from floods and earth-slips.

When first coasting along the shores, and even when inspecting the maps, travellers are apt to suspect that Istria is an exception to the rule of the earth. In all great triangular peninsulas, whose apices face southwards—India, for instance, to quote no other—

* "Pola," the great naval arsenal of Austria, is popularly derived from "Pietas Julia,"—a mistake. Strabo uses the word πόλα and Pliny (Nat. Hist. iii. 23) speaks of the "colony of Pola, now Pietas Julia." Though Strabo derives it from Colchian ("exulum oppidum"), it appears to be an indigenous word, with the signification of a sweet-water spring in the sea, a very common feature along the Mediterranean shores. My kind friends, the learned Cavaliere Tommasini, of Trieste, and Baron Carl von Czoernig (junior), both assure me that the word is "Polla," and derived from the Latin *pullulare* or *pollutio*, and the former adds, "La langue Romaine de la décadence et l'italienne conservent presque sans exception les voyelles doubles de la langue classique." To which my reply is, that this rule is not without exceptions, *e.g.*, we say "Bora," when Procopius writes πρὸς βορρὰν ἄνεμον (ii. 15). Secondly, I have heard the word pronounced, even by educated men, Pola, and not Polla. The Romans, who carried off many of the Istrians into captivity, left a remnant of the subjugated people, and possibly adopted some of their words. If, as generally assumed, the language was Pelasgo-Thracian, we may find analogies in the Celtic dialect of the Albanians, the direct descendants of the old race, whose tongue has supplied derivations to so many of the proper names of the ancient Greeks. So in Irish, "Poll" is a hole or pit, which in composition becomes Pola. My friend Dr. Barnard Davis supplies me with Cornish Pol, Welsh Pwll, Armoric Poull, Gaelic Poll, and Manx Poyl—all equivalent to our pool, pond or mud.

† P. 10, "L'Istria," &c.

the sides are bounded by Ghats or lateral ranges, flanking an inner basin or table land of low elevation. The lesser features, like Sinai, present a smaller V of highlands, enclosed in a much larger trigon of lowlands, *e.g.* ∇ A view from the sea suggests that Istria has a regular slope from the lofty north-eastern, eastern, and south-eastern frontiers, the Slavník (Tajano) block, the Cici mountains, and the Monte Maggiore, *alias* the Caldiera. Hence Pliny, in his pregnant style, writes "*Histria ut peninsula excurrit*" (Nat. Hist. iii. 23); and native geographers have considered it as a buttress of the Julian Alps, thrust forth by Nanos, Monte Re or Regio,* and by the Mons Albius or Albanus, known as the Monte Nevoso or Schneeberg. Pliny (Nat. Hist. iii. 19), in a passage evidently corrupt, tells us, "Some writers have stated its (Istria's) length to be 40 miles (M.P. xl.), and its circumference 125 (M. P. cxxv.) *And the same as to Liburnia, which adjoins it, and the Flanatic Gulf, while others make it 225; others, again, make the circumference of Liburnia 180 miles.*" The words in italics may also be read, "And the circumference of Liburnia which joins it with the Flanatic Gulf, some make 225, while others make the compass of Liburnia to be 180 miles." Strabo (vii. 5, § 3) gives the whole voyage along the coast of Istria at 1,300 stadia, or about 155 miles.

In the charts we find four great valleys in the Istrian centre, debouching upon the sea—one to the north-west, two to westward, and one to the south. The first is the Dragogna, whose characteristics are meadow lands and Salinas. The second, which divides the peninsula in two, takes a variety of names, *e.g.*, Val Quieto at the mouth, and Val de Montona higher up: it is the only stream in Istria that deserves the name of river—the little Risano is a mere brook,—and that can carry to the Adriatic the rich growth of timber lining its banks. The third and fourth, the Val di Leme (Culleus Limenis) and the

* It derived its regal name from Alboin, King of the Longobardi, who, in A.D. 568, planted his spear upon the summit, and hence prospected Istria, which he overran without permanent occupation, preferring to found the duchy of Friuli.

† This water has been recognised by antiquaries (Pietro Coppo, A.D. 1540, and Bishop Tomasini, 1595) as the stream to which Strabo alludes (Book i. 3, § 15). "They supposed that there was another river in addition to the former Ister, bearing the same name, which emptied itself into the Adriatic, and from which the country of Istria, through which it flowed, gained its title. It is by this river, they believe, Jason returned on his voyage from Colchis." Pliny (Nat. Hist. iii. 22) at once supports and corrects this account: "For it is the fact that no river which runs from the Danube discharges itself into the Adriatic. They have been misled, I think, by the circumstance that *the ship Argo came down some river into the Adriatic sea not far from Tergeste (Trieste?), but what river that was is now unknown.* The most careful writers say that the ship was carried across the Alps on men's shoulders, having passed along the Ister, then along the Savus (Save), and so from Nauportus (*i.e.*, *vaûs* and *πορθυûs* or passage = Ober-Laybach in Krain), which place lying between Emona (Laybach, the capital) and the Alps, from that circumstance derives its name." Strabo (iv. 6, 11) calls Nauportus, possibly by corruption, "Pamportus." Let me here observe that I find nothing ridiculous in the legend of "Argo navis" being carried upon men's shoulders from the Danube to the Val Quieto. Moderns are apt to think of sloops and frigates, when the classical ship was probably a long boat, which, without her gear, would weigh at most two tons. Thus her crew of fifty oarsmen would have no difficulty in a portage.

Canale and Val d'Arsa (the classic Arsia, which divided Italy from Liburnia) are deep and precipitous Wadys, Fiumaras, or ravines of limestone in the upper part, and in the lower true Fjords.

It is not till the geographer has inspected the interior that he finds a true basin, mostly of green and ruddy sandstones, locally called *tusello* (Mergel Sandstein) and *masegno* (quartzose and micaceous), which contrast so sharply with the grey limestone. Beginning immediately beyond the old town of Couvedo or Covedo, the Roman Cubida (?), this hollow, in places laterally cut by high dividing ridges, extends to the shores of the Lago di Cepich: it is approached seawards by ridges averaging 1,500 feet in height. In places it is only 500 feet above sea level, and the four water-courses, like the African giants, must break through the rocky rims of the basin before they find their way to the Adriatic.

Our peninsula was doubtless inhabited in early ages, and local students still trace in its modern Veneto-Italian speech remnants of the old Illyrian Histri or Istri, whose dialect has been vaguely connected with Etruscan, Umbrian, Euganean, Illyrian, Keltic, Greek, and Phœnician.* The Carni held the Alpine tract, which, extending from the Tricorno or Triglou (Tri-glav) to the Nanos, finally forms the "Carso,"† and they owned Concordia, Aquileja, and Tergeste, the modern Trieste (?). The Iapydes, or Iapodes, occupied the lands between the Nanos and the Mons Albius or Albanus, upon whose eastern flanks they came in contact with the Liburni.‡ About B.C. 600, certain Gallo-Keltic tribes who

* We read in "L'Istria" (p. 13), "In tutto il resto della Provincia, prevale dal Secolo xiv. e xv. in poi il dialetto Veneto, ma non così che con molta diligenza non si possano ancora scoprire tracce del dialetto originario Istriano, in frasi, in formole popolari, in proverbi, e nello stesso accento, lungo tutta la costa da Muggia a Fianona, anzi nella stessa Trieste, e nell'intorno fin sulle alture di Raspo, non fosse altro in qualche nome di località, di condizioni speciali del suolo, in alcune interjezioni appassionate, nel linguaggio che si adopera coi bimbi, e in certune di quelle voci, per lo più monosillabe, che servono a contenere e dirigere gli animali nella corte, al pascolo e sul lavoro." A collection of these forms would be truly valuable, and many Istrians are well capable of making it. I hope that they will soon gird themselves to the task.

† The origin of this word is disputed. A. v. Morlot ("Ueber die Geologischen verhältnisse von Istrien, &c., aus den Naturwissenschaftlichen Abhandlung," ii. Band. ii. Theil. s. 257) proposes to derive Karst and Carso from the Slavonic Hrast, the oak; still the type of its vegetation. Thus it would signify Oakland, the old name of Germany. But those who remember that the country lies in "Keltica beyond the Alps" (Transalpine Gaul; Strabo, iv. 6, 1) naturally reject this comparatively modern origin, and prefer the Keltic *Caer*, a stone, which best describes the surface. Linhart (i. 53, "Versuch eine Geschichte von Krain") suggests that Karst is contracted from the *καρουράδιον ὄρος* (iii. 1. 1.) of Ptolemy. Dr. J. Kohen (vol. i. "L'Archeografo Triestino") prefers the Caravancas, *καρουάγκας ὄρος* (iii. 1, 1) of the Pelusian, the eastern part of the Oera, above Trieste. But the dispute is verbal, the two being evidently names of one place.

‡ "For the Alps were originally called Albia and Alpionia (Alpeina?), and at present the high mountains in the country of the Iapodes, next to Oera ("Οκρα) and the Alps, is named Albius, showing that the Alps extend so far" (Strabo, iv. 6, 1). The same author (iv. 6, 10) makes the Iapodes "a nation now mixed with the Illyrians and Kelts." This Illyrian tribe, also called Iapyges (Pomponius Festus Epist. Orb. Terr. Syn.) has been copiously written about by modern geographers.

had accompanied Bellovisus occupied the Oera* (the lowest part of the Alps between Nanos and the Schneeberg). In this and the following century, Pelasgo-Ionic and Thracian peoples flocking from Greece and Pontus easily intermingled with the older possessors of the soil, the Pelasgo-Umbrians and the Etruscans, and settled upon the parts nearest the sea. This last wave of emigration is referred to in the traditions of Medea and Jason, of Apsyrtos or Absyrtus, of the Argonauts and the Colchians, collected by Pomponius Mela, Strabo, Pliny, Trogus Pompeius, and Justin. Hence the country assumed the name of Istria, and for ever lost its ancient name. The existence of Thracians is also proved by the *Periplus* (*Periegesis*) of Scymnus, of Chios, written by command of Darius Hystaspes.† Some 300 B.C. we find that, according to Cleonymus of Sparta, who navigated the Adriatic, Istria ruled that water, and Florus informs us that "the city of Tarentum sent ships to trade with the shores of the Peninsula."‡ The Istrian war (B.C. 177), circumstantially related by Livy (*lib. xli. l passim*), the destruction of Nesactium, and the foundation of Aquileja by the Romans, brings the country into connection with authentic history.

This most interesting province, overrun by the barbarians, subject to a succession of conquerors, annexed by Venice, colonised by Slavs, and now part of the Austrian empire, has been copiously

* Strabo mentions the Oera in five places. Can the word have connection with the Syrian Oera (Mons Casius), which in Arabic would mean the "bald mountain"? (See "Unexplored Syria," ii. 73.) Pliny (*iii. 23*) also names Oera, a ruined city of the Carni.

† *Geographi Græci minores* (pp. lxxiv. and 196—237). "Anonymi (Scymnii Chii, ut fertur) orbis descriptio." See the passage beginning (*i. 369*) with

εἴτ' ἔστιν Ἀδριάνη θάλαττα λεγόμενη.

He describes, after Theopompus, the site as a synisthmus with Pontus; the coast garnished with the Apsyrtydes, the Electrides, the Liburnicæ, and other islands like the Cyclades; the barbarous peoples round the head (Strabo notes their tattooing, *vii. 5, 4*) who numbered 150 myriads; the fertility of the lands, the prolificity of the herds which brought forth twice a year; the dampness of the atmosphere, with its sudden changes, especially in summer, its thunderstorms, and its *τυφῶνες* (the Scirocco and *bora*). Finally, he separates the Paphlagonian Eneti or Heneti (of Venetia) from the Istrians proper, in this line—

Ἐνετῶν ἔχονται Θράκες Ἰστροὶ λεγόμενοι.

Hence the learned Dr. Kandler ("Discorso sull'Istria, etc.," Trieste, 1867) contends that the Istri, finding a resemblance between the Alps and Hæmus (Balkan), the Adriatic and the Euxine, the Quarnero Gulf with the true Istrian Delta, simply brought the name with them in memory of their old home. Thus Pontic Istropolis became Polis, Pola; and the Val Quietto (Nengon or Ningun) may have been called Ister. This, at any rate, is better than the Hebræism of the late Abbé Pierri Tomasin (*Arch. Trieste, New Ser., Jan. 2, 1871*), who makes Istria *קשרה* (congregation) *מים* (of waters), and even Hebræism improves upon Cato, who derives Istria from a Captain sent by Janus, identified by clerkly traditionists with Noah.

‡ "L'Istria, schizzo storico-etnografico di Tomaso Luciani" (Firenze, 1866). The traditions of the Pelasgi are evidently taken from Strabo (*v. 2, 4*), who makes them "an ancient race spread throughout the whole of Greece, but especially in the country of the Æolians, near to Thessaly." Of late years it has been the fashion to ignore them.

written about. The "Saggio di Bibliografia Istriana," a stout 8vo of 484 pages, published by the learned Dr. Carlo de'Combi, of Capodistria ("Tipografia Tondelli, Capodistria," 1864), contains the names of 3,060 works, divided into twelve classes, viz.: Geography and chorographical materials; natural science; ethnography; history, ecclesiastical annals, auxiliary historical studies (*documents à servir*), legislation and administration, political economy, beneficence and education, biography, various minor works, and classics. To these are added an Appendix and a scholarly Index.* That much is not known about Istria in England we may judge from the fact that our guide books dismiss in four pages the whole subject, Pola included.†

Already, during the last century, the illustrious Gian Rinaldo Carli, of Capodistria, in many erudite publications, especially in that entitled "Delle Antichità italiane," had called attention to the great monuments and to the historic importance of his native land. In the third decade of the present century, the Istrian Canon, Pietro Stancovich, of Barbana, collected, in three volumes ("Biografia degli Uomini distinti dell'Istria"), notices of 478 fellow countrymen who had distinguished themselves in various civil and military careers. He was followed by Dr. (LL.D.) Domenico de Rossetti (ob. 1842), who, writing upon history and legislation, zealously defended the rights and privileges of his beloved Trieste, and who founded the Minerva (literary club); the Winckelmann monument; the Petrarquesca and Piccolomini collections; the Archeografo Triestino; and other literary associations. He was fortunate enough to leave a pupil, the late Dr. (LL.D.) Pietro Paolo Kandler, who surpassed all three in the extent and the success of his labours. Concerning this Istrian worthy, it will be necessary to say a few words.‡

The late Pietro Kandler was descended from a Scotch family (Chandler), which had settled at Trieste, during the early seventeenth century. Born at Trieste, on May 23 (24?), 1804, he studied law at Padua and Vienna, and finally graduated at Pavia. Returning to Trieste in 1826, he became a pupil, a confidant, and a collaborateur of Dr. D. de Rossetti, and filled various important posts in the magistracy of his native city. He founded the museum; he forwarded the Imboscamiento or enforesting of the Carso; and he became conservator of the antiquities of the Litoral (Istria, Trieste, and Gorizia); a councillor of government, and finally member of the Imperial

* Dr. de'Combi's father, Francesco, who died in 1872, was also a literary man. His translation of the *Georgics* in *ottava rima* has lately been published at Capodistria (1 vol. 8vo). The son is now professor in the Scuola superiore di Commercio di Venezia. His admirable catalogue is to a great extent *raisonné* with notices and dates of editions: the author modestly signs himself "Il compilatore," and the book was published at the expense "di una società patria."

† Murray is especially bad. He borrows almost textually from Turnbull's "Austria," London, Murray, 1840.

‡ I shall borrow from "Pietro Kandler," a biography written by Sig. Tomaso Luciani: it first appeared in the *Archivio Veneto*, vol. iii. part i. Venice. Tip. del Commercio, 1872; and was subsequently reproduced in a brochure of 23 pages, large octavo.

Tribunal. He took a highly patriotic part in the proceedings of 1848. He retired from public life in 1854. He lived modestly, devoting all his fortune and his leisure to favourite studies, and he died poor on January 18th, 1872. It is a pleasure to add that his compatriots have not shown themselves forgetful of his services, and that his unpublished maps and manuscripts have been secured for his native province.

Dr. Kandler began to write upon Istrian antiquities during his fifteenth year, and continued his beloved study to the last. The titles of his various works and opuscles fill eleven closely printed pages of the Biography; the list of his unprinted maps and memoirs nearly five more. He wrote equally well in Latin, German, and Italian, and his epigraph, "RESVRRECTVRIS," over the gateway of the Catholic cemetery at Trieste is admired for its simplicity; at any rate, it is better than the banal "In Domino requiescentibus" of its neighbour. He had all the instincts of a traveller and an anthropologist. He began his work by learning the ground; as a student he personally inspected Hungary, Croatia, and Slavonia, Styria, and Lower Austria. After taking his degree he visited Lombardy, the Swiss Lakes, and the lands about Trent and Venice. But his favourite autumnal beat was the maritime zone, between Aquileja and Fiume, including Istria, Carsia (the Carso country), Gorizia and the Julian Alps (formerly the Iapydian or Albian mountains), and by repeated journeys he made himself thoroughly master of this nucleus. He travelled on foot, not after the fashion of a modern tourist; and he carefully mapped the country as he went over it. He was an anthropologist in his zeal and ardour for collecting facts and in his horror of premature generalisation.

When pressed to compose a history for his natal province, he would reply,—

"The annals of Istria are written upon her surface from the mountains to the sea; but it is not a book who runs may read. Many pages have been blotted and falsified, and not a few have been absolutely torn out. To purify the ancient text from the excrescences, and the soilings of barbarous hands, from the violence of these and from the ignorance of those, and adequately to supply the deplorable *lacunæ*, is a long and laborious task—a work of time, of study, and of art."

But to him it was also a labour of love. His position at Trieste gave him many opportunities, and by adding to actual explorations the arduous collation of archives, and of private as well as public documents, by examining every witness, by frequent discussions with friends who enjoyed his genial and humorous vein, and, better still, by constituting himself essentially a specialist, and by concentrating all the powers of his brain upon a single point, he ended with acquiring that "sixth sense" which is the reward of intense application, and the systematic training of high natural gifts.*

* Of this many instances may be adduced. Dr. Kandler was often accused of classic mania, of arbitrarily supplanting Slav by Roman names—for instance, in identifying Nabresina, near Trieste (*i.e.* na-breka, on the hill or bank), with the

But Dr. Kandler had confined himself to the study of Roman Istria; the science which arose with M. Boucher de Perthes reached him too late in life. His mind was large and receptive enough to accept the theory of prehistoric man; he declared, however, that the business of his youth must be that of his old age. In his various excursions he had carefully mapped the network of the Castellieri ("La Rete dei Castellieri"), which covers the Peninsula, but he had determined the remains to be those of Roman camps. Some twenty-three years ago (1850-51), a Keltic origin was assigned to them by Carl Freiherr von Czoernig (S.K.K. Apost. Maj. Wirkl. Geheimer Rath, Präsident, etc., etc., etc.) This distinguished official, who has lately published a large volume upon Gorizia,* could not believe that the warrior people had chosen the waterless summits of the hills for military positions, and, as in parts of the province half a dozen may be seen from a single spot, he justly assigned them to a population, not to an army. But years followed before the final step was taken, when Sig. (lately made Cavaliere) Tomaso Luciani, and his kinsman, Dr. (LL.D.) Antonio Scampicchio of Albona, by finding prehistoric instruments even in their native town, and by other satisfactory proofs, which will presently appear, set the question definitively at rest.

It would hardly be fair to speak of the Istrian Castellieri without a notice of Cav. Luciani's labours; as, however, that gentleman still lives, my account of his career must be succinct. His family, evidently and notably Italian, settled in the classical Respublica Albonessium, the only classical Istrian Republic,† as early as the fourteenth century, and acquired landed property. Born about 1820, he preferred, like the late Mr. Buckle, private study to the public school, and his early education was directed

Latin Auresina. Years afterwards his friend Tomaso Luciani, when turning over in the R. Archivio Generale Veneto a parchment codex of the Cancelleria Inferiore, entitled *Attied instrumenti appartenenti a Beni della Cà di Dio dal 1205 al 1527*, found on an Act of 1292, in which Zerani and Mateo Maroli da Trieste refunda una casa in la contrada de Cavana e tre vigne a la casa di Dio with the Latin text *et tres vineas sitas in pertinentijs Tergesti in contrata Aurisini*. And yet I have heard educated men quote this very specimen of Dr. Kandler's hallucination.

* Das Land Görz und Gradisca; mit Einschluss von Aquileja Geographisch-Statistisch-Historisch dargestellte von Carl Freiherrn von Czoernig, etc., etc., etc. Wilhelm Braumüller, Wien, 1873. The Keltic hypothesis, they say (for I have not read the two volumes), was advanced in the "Ethnographia des Oesterreichischen Kaiserstaates," Wien, Staatsdruckerei, 1856. Here also was published the useful ethnographical map of the Austrian empire by the same author: it is now being reprinted.

† It is the capital of Istrian Liburnia, and is mentioned by Pliny (iii. 25, § 2); by Ptolemy (iii. 17, Aluona); and by the Anonymus of Ravenna (v. 14). The name is popularly derived from the Keltic *al*, high, and *bon*, a settlement, colony, foundation, *e. g.*, Lis-bon; the name is justified by its position, *circ.* 1,000 feet above sea-level. The Luciani family is mentioned in early days. A Luciani was the mother of the celebrated Mattia Flacco Illirico, *alias* Matteo Francovich, born at Albona, A.D. 1520. "Un des plus savants théologiens de la confession d'Augsbourg" (Bayle. Dict., sub. v. "Illyricus"), he professed Greek at Tübingen, and wrote a variety of "Compositioni heretiche, perverse e maladette" in favour of Protestantism.

by the learned Albonese, Antonio Lorenzini, who died in 1835. He travelled early through northern Italy, and worked at his own discretion in Padua and other centres of learning. An ardent patriot, and indignant against the effete and harassing system of home government, before the reform of 1848 and 1867 made Austria one of the most constitutional and progressive of European countries, he was involved in political troubles, and in 1861 he left his country for Milan. He removed to Florence with the transfer of the Italian capital (1865); and in 1866, when Venice became free, he settled there as an Italian citizen, and an *employé* of the Archivio de' Frari. Finding that the duties interfered with his studies, he resigned his appointment, and engaged in the pious task of copying and preparing for publication the documents of that valuable collection, which bear upon the history of his beloved province. In 1871 he attended the Congress of Bologna, and as the subjoined extracts show, he took a prominent part on that occasion.* He periodically revisits his native city, and he uses his leisure to extend his investigations. Sig. Luciani has obliged me with the following list of his highly meritorious labours.

1846. *L'Isola di Cherso*, sue condizioni presenti e passate. I. Lettera al Dr. Pietro Kandler, stampata nell'Istria, periodico settimanale. Anno I. N^{ro} 35, dei 13 giugno, 1846, a pagine 140-142.

1846. *Cherso ed Ossere*. Antichità. II. Lettera al Dr. Kandler. (Istria, An. I., N^{ri} 38, 39: 27 giugno, 1846, pag. 155-158.)

1847. *Di alcune Traccie d'antichi edifizii e d'altri indizi d'antichità romane esistenti in Fasana, in Dignano e in Albona*. Lettera al M. R. Don Matteo Callegan, Parroco-Arciprete in Fasana. (Istria, Anno II., N^{ri} 15, 16: 27 febbraio, 1847, pag. 59-62.)

1847. *Emende ed Aggiunte alle Memorie storiche antiche e moderne della Terra e Territorio di Albona etc.*, scritto indizzato al Dr. P. Kandler. (Istria, Anno II., N^{ri} 67, 68, pag. 215-277. N^{ri} 69, 70, pag. 283-286. N^{ri} 73, 74, pag. 300-302.)

* Extract from the *Congrès International d'Anthropologie et d'Archéologie préhistoriques. Compte rendu de la cinquième session à Bologne, 1871*; avec planches et figures intercalées dans le texte. Bologne: Imprimerie Tava et Garagnani, au progrès, 1873 (un vol. di pag. 543).

In the *Rapport sur l'Exposition Italienne d'Anthropologie et d'Archéologie préhistoriques*, pp. 485-518, we read (pp. 490, 491):—"Pour compléter la classe des restes préhistoriques de l'Italie du nord, se présentaient les belles haches en pierre polie trouvées dans l'Istria et possédés par M. Thomas Luciani de Venise [rather of Albona, domiciled for some years at Venice]. Leur forme est celle que d'ordinaire on rencontre dans de pareils objets de la même époque, qu'on tire en grande quantité de toute la Péninsule. Le Jury pourtant ne peut s'abstenir de faire observer que dans la petite collection de M. Luciani on voyait une hache en pierre polie, tirée d'*Altona* (error for *Albona*) laquelle, quoique gâtée du côté du tranchant, dépassait grandement par son volume toutes les haches plus volumineuses des autres collections, et entraînait en concurrence pour la beauté avec la hache du mont Gualandeo de la province de Pérouse de laquelle on parlera plus loin." (A tracing of this fine weapon accompanies these pages.)

In page 504 we find:—"Un autre bijou de l'Exposition se remarquait dans la petite collection de M. Guardabassi. C'était une hache en pierre polie, trouvée sur le mont Gualandeo près de Pérouse, qui dépassait par son volume toutes les autres qui figuraient à l'Exposition, à l'exception de celle trouvée à *Altona* (*Albona*), et que nous avons déjà mentionnée."

The report, dated Bologne, Octobre, 1871, is signed, "Les Jurés—G. Guiscardi, G. Nicolucci, G. Ponzi, C. Regnoli. L. Pigorini, Rapporteur."

N^o 75, pag. 305, 306. Le pagine 275-277, contengono la indicazione dei Castellieri e delle altre antichità del territorio di Albona: nelle ulteriori 283 etc., solo riportate molte iscrizioni venete e romane.

1862. *L'Istria*, scritto descrittivo che abbraccia con brevi tocchi topografia, orografia, idrografia, geologia, meteorologia, clima, vegetazione, flora, fauna etc., nella *Strenna Aurora, Ricordo di Primavera*, a beneficio dell'Asilo infantile di Rovigno, Anno II. (Rovigno: Tipografia istriana di Antonio Coana, 1862, da pag. 88 a 103.)

1864. *Quarnaro—Albona—Istria. Studi storici etnografici, nell'Alleanza*. Giornale internazionale politico-letterario. Milano, 1864, N^{ri} 15, 16, 17, 19, 20 e 21.

1866. *L'Istria. Schizzo storico-etnografico*. Firenze, 1866.

1869. *Mattia Flacco Istriano di Albona*. Studio critico, con documenti, per metter fuori d'ogni dubbio che il Flacco, (*l'un des plus savans Théologiens de la Confession d'Augsbourg*, come dice il *Bayle*), fu nativo non da altro luogo che da Albona in Istria. (Pola, Tipografia Seraschin, 1869.)

1864 a 1873. Nel *Dizionario corografico illustrato dell'Italia*, che forma parte dell'*Italia sotto l'aspetto fisico, storico, letterario, artistico, militare e statistico* etc., che si pubblica a Milano dal Dr. Francesco Vallardi, sotto la direzione del prof. Amato Amati, gli articoli che riferiscono all'Istria e particolarmente gli articoli *Albona—Buje—Capodistria—Carsia—Dignano—Istria—Montona—Murgia—Monte Maggiore—Parenzo—Pedenà—Pirano—Pisino—Pinguente—Portole—Pola—Quarnaro—Quieto—Rovigno*.

1872 e 1873. *Notizie e Documenti per la conoscenza delle cose istriane*, nel *Giornale La Provincia*. (Capodistria: Tip. de Gius. Tondelli—ora Trieste—Stab. Tip. Appolonio e Cagniu.) Sono Note e Prospetti statistici—Atti pubblici—estratti—indicazioni—registri sopra svariate materie riferentisi all'Istria, tratti dall'Archivio Generale Veneto dette dei Frari dal Museo Civico, e dalla Marciana di Venezia.

1873. *Fonti per la storia dell'Istria negli Archivi di Venezia*, nell'Opera intitolata—*Il Regio Archivio generale di Venezia*, compilato, dietro incarico ministeriale, per la Esposizione Universale di Vienna,—da pag. 331-352. (Venezia: Tip. Naratovich, 1873.)

The following unpublished letter of Cav. Luciani to a friend Luigi, Dr. (now Cav.) Buzzi, still resident at Trieste, will show that, beginning in 1859, in 1870 he had thoroughly appreciated the pre-historic importance of the Castellieri. I send it you without translation, in the abiding faith that the readers of *Anthropologia* will far prefer the original. The document is most valuable, because it recounts the course of discovery, and the few notes which I have added are chiefly drawn from the communications of the able and amiable author addressed to myself.

“ONOREVOLE SIGNOR INGEGNERE LUIGI DOTT. BUZZI,

“*In Trieste.*

“Il sig. D. M. ed Ella, distintissimo signor Ingegnere, ch'io per inopinate combinazioni non ho potuto incontrare e conoscere in un mio recente passaggio per Trieste, mi hanno posto, per eccesso di benevolenza, in un grave impiccio di fronte ai lettori del *Cittadino*. Mi riferisco alle lettere che si sono scambiate a riguardo mio nei n^{ri} 26 e 28 del detto giornale.

“Io non sono uno scienziato, non sono un paleo-etnologo; non lo sono assolutamente. Delle scienze io ne so appena quanto occorre per non averne pretesa.—Però la coscienza del mio scarso sapere non mi rende pusillo, nè mi ha tolto mai il senso del mio dovere. Quindi sono ben lontano dal negare o nascondere cose che possano comunque giovare e in generale alla scienza, e in particolare alla storia del mio paese, che amo tanto. E a dimostrarle cò fatti la mia franchezza, e insieme il vivo mio desiderio di stringere rapporti con Lei che mostrasi così addentro nei nuovi studii, le esporrò candidamente non solo le mie qualunque scoperte, ma ad un tempo anche la via per la quale vi sono arrivato.

“ Il rinvenimento affatto accidentale di una importante lapida romana seguito or sono molti anni in Albona mia terra natale, m'invogliò alla ricerca di cose antiche, prima nell'agro Albonese, poi anche in altre parti della provincia. Fatto attento dalle dotte elucubrazioni archeologiche del Dr. Pietro Kandler, viddi che l'Istria tutta fu all'epoca della dominazione romana coperta da una rete di fortilizzii e vedette postesse per le tante sue alture a guardarne il confine alpino, i porti, le cittadi, le vie, ad avvisare pericoli, a propagare notizie. Ma visitato poi partitamente un rilevante numero di coteste rovine negli agri di Albona, Cherso, Volosca, Pisino, Pola, Dignano, Rovigno e Parenzo, viddi, o mi parve di vedere, che non tutte sono cosa romana, che in alcune anzi nulla o ha di propriamente romano o d'altro popolo che possa dirsi civile, che in altre sotto lo strato romano v'è qualche cosa di ben più antico, di assai più antico, di quasi ciclopico, a non dir primitivo; viddi, o mi parve di vedere, in parecchie di esse le ultime orme di un popolo antichissimo, povero di bisogni e di mezzi, rozzo, selvaggio, che non aveva l'uso del metallo, che viveva pare, all'aperto e si trincerava in piccoli gruppi o tribù pelle cime delle montagne, di preferenza pelle più alte.*

“ Nata in me questa idea, non visitai più rovina montana senza portarne a casa qualche segno materiale. Così ho fatto su, quasi senza accorgermi, una buona messe di manichi, di fondi, di labri, di altri frammenti di vasi assai grossolani, e due vascoli intieri, ed altri cocci male impastati, non cotti al fuoco, o mal cotti, misti o d'argilla biancastra, o di terra rossa locale, di sabbia, e d'abbruciatuccio, e insieme alcuni pezzi di pietra levigati, arrotondati, quasi parti od avanzi di piccole mole a mano, poi qualche osso anche fesso, e qualche altra pietra ridotta o forme un po' regolari; finalmente mi capitò fra le mani una piccola ascia o scure di pietra nera durissima, lavorata con giustezza di proporzioni. Tutto questo prima del 1859.

“ Trasferitomi altrove, raccomandai la raccolta comprendente qualche saggio di breccia ossifera, buona copia di petrificati, alghe, conchiglie, monete romane e venete, mobili antichi, pergamene ed altri cimelii, raccomandai, dico, ad un mio carissimo parente ed amico, il signor Antonio Scampicchio, che accolse tutto e conservò con gelosissima cura in sua casa.

“ Nell'autunno del 1867, ho potuto rivedere la terra natale, e le mie raccolte, ma l'amico non più.† Però trovai vivente il suo spirito nei figli di lui, i quali anzi non contenti di conservare, vollero continuare la mia raccolta. L'avvocato Antonio particolarmente si diede allo studio delle cose naturali, s'adopera a completare la collezione locale dei petrificati e tien dietro con passione alle più recenti scoperte paleontologiche ed antropologiche.

“ In una prima gita fatta assieme a Fianona raccogliemmo un elmo di rame e un amuletto di bronzo, che il chiarissime dottor Kandler ha giudicato anteriori a Giulio Cesare, non romani, probabilmente liburnici, che è a dire italici antichi. L'amuletto o che altre sia, fatto in modo da stare appeso, rappresenta un quadrupede a collo lungo, che per le apparenze e la massa, dovrebbe essere classificato fra i cani, ma che non ha vero riscontro nelle specie viventi.

“ L'autunno seguente (1868) ritornai in Istria fui ancora più fortunato. Ricuperai dalle mani di un contadino in Vermo, distretto di Pisino, una punta di freccia di selce simile a quelle del vicentino. E di perfettissima conservazione, ed ha la forma e le dimensioni precise di quella che il chiarissimo Lioy da disegnata nel testo della sua *Escursione sotterra* e che fu riprodotta in altre pubblicazioni.

“ Da cosa vien cosa. Riseppi allora che nello stesso agro di Vermo furono dissotterrati molti anni addietro altri ed altri oggetti di cotto, di rame, di bronzo, i quali finirono non si sa dove. Ultimo avanzo di questi ebbi per gentilezza un cavalluccio di rame, rimarchevole anch'esso per il collo lungo oltre il naturale delle specie viventi.

“ La punta di freccia‡ ritrovata in terreno recente, dev'esser venuta giù colle acque dai poggi circostanti, poggi ch'io ho visitato, ma che non potei ricercare

* This generalization is doubtful, as will presently be shown.

† The present head of the family is Dr. (LL.D.) Antonio Scampicchio, of whom I have much to say.

‡ A tracing accompanies these pages.

ancora in tutte le loro parti così da riescire a risultati sicuri. Intanto il fatto della freccia mi animò a spingere innanzi, molto più innanzi, le mie ricerche.

“Il suolo dell'Istria è perforato non solo da grande numero di profonde voragini, ma anche da antri e caverne praticabili ed abitabili:—Pensai che importerebbe visitare e frugare ad una ad una almeno quest'ultime che in esse forse potrebbero nascondersi tracce ed avanzi di epoche ancora più remote e veramente selvaggio.

“L'ecceco coll'amico Scampicchio delle ricerche, impegnammo altri amici ad estenderle e moltiplicarle, ma ancora non ci arrise il desiderato segnale. Non disperiamo. Gli uomini dell'età della pietra, dei quali si hanno, come vede, indizii non dubbii nell'Istria, non saranno già cascati giù dal cervello di Giove belli ed armati. Insistendo ci si arriverà, ci si deve arrivare.

“L'ultimo autunno (1869), potemmo fare qualche escursione sull'isola di Cherso. —Nelle vicinanze di Vrana, donde avevo avuti i primi saggi de breccia ossifera, ne trovammo altri ed altri ricchi sopra tutto di denti. Poi n'ebbimo di più rari tratti dalle parti dei Lussini. In uno di questi i è un notevole miscuglio di grossi denti d'animale e di denti minori ch'io non oso dire d'uomo. E un esemplare che vuol essere giudicato da chi ha familiarità colla anatomia comparata. — Finalmente, accompagnato da egregie persone pratiche dei luoghi, sono sceso nelle caverne di Ghermosal, non lungi dal canale di Ossero, già descritte dall'illustre Naturalista Alberto Fortis nel suo *Saggio di Osservazione sopra l'isola di Cherso ed Ossero. Venezia, 1771.*

“Molti accusarono il Fortis di esagerato, poetico, visionario. Facile il dirlo, ma io colla scorta del suo libro ho colto la natura per così dire in flagranti, nell'atto cioè che forma e consolida la pasta ossifera chiusa fra strati di pietra. La descrizione ch'ei fa di dette caverne è così esatta ch'io e miei compagni possiamo dire di aver posto il piede e la mano dove egli le pose. Ma i cent'anni corsi dalla sua esplorazione sono un giorno nella vita della natura. Tolta forse in qualche tratto l'ultima superficialissima crosta, ogni cosa nelle caverne è oggi appunto com'era ai tempi del Fortis. La scienza invece ha percorso un immenso stadio, ma oggi, se fosse vivo, il Fortis certo sarebbe coi primi.

“A Cherso ci dissero che nelle famiglie dei contadini si tengono come infallibile guarentia contro il fulmine certi pezzi di pietra nera che dalla descrizione d'vrebbero essere altrettante armi o stromenti dell'età della pietra. Osservarono altri che lo stesso avviene in altre parti dell'Istria è specialmente sul Carso. Non è facile accertarsene perchè la cieca superstizione impera, dicesi, al possessore di farne mistero. Pur cerca e ricerca saltò fuori, precisamente in Cherso, una accetta di pietra nera poco dissimile da quella ritrovata molti anni addietro sui monti di Albona.

“Per ultimo nello escavo di un canale a Polo sono stati estratti con altre ossa dei grossi denti ai quali pure giova prestare attenzione.

“La punta di freccia, le due ascie, uno dei denti trovati a Pola, avuto dal sig. G. Seraschin e alcuni esemplari di breccia ossifera con varietà di denti, tengo al momento presso di me per istudii e confronti: tutto il resto che ho accennato di sopra esiste in Albona.

“Queste cose furono in parte narrate dalla *Provincia* che si stampa a Capodistria, e ne fu toccato di volo anche in qualche articolo del *Dizionario Corografico dell'Italia* che stampa il Vallardi, sotto la direzione del prof. Amati in Milano.

“Prima che ad altri io desideravo di comunicare tutto ciò di persona al chiarissimo prof. Lioy, ma nell'occasione cui sembra voler alludere il sig. D. M. ebbi la sfortuna di non ritrovarlo a Vicenza, e quindi i confronti tra le cose Istriane e le Vicentine ho dovuto instituirli al Museo senza il dotto concorso di lui.

“Non ne ho dato poi comunicazione formale a Corpi scientifici, perchè voleva prima portare a compimento una serie ordinata di osservazioni e confronti, indispensabili a dedur conseguenze veramente concludenti e accettabili dalla scienza.

“Ma giacche ella, esimio signor Ingegnere, e il signor D. M. colla loro gentile pressione mi hanno fatto rompere un riserbo che mi pareva doveroso; oggi, deposto ogni riguardo mio personale, dirò intiero il mio pensiero.

“Penso che la punta di freccia avuta a Vermo di Pisino, e le due ascie di Albona e di Cherso appartengano alla terza età della pietra;—penso chei, cocci e gli altri oggetti in pietra reperiti e reperibili sulle cime di alcune montagne dell'Istria, possano

corrispondere all'epoca delle abitazioni lacustri, o siano posteriori di poco;—penso che le abitazioni lacustri o palafitte non siano mancate in Istria, paese che e per le sue posizioni al mare, e per la conformazioni di alcune interne vallate, vi si doveva prestare benissimo, ma parmi che non siano da ricercarsi per ora alle sponde del Quietò, dell'Arsa o del suo Lago, dove l'enorme quantità di terra calata giù dai monti colle acque dovrebbe averle assai profondamente sepolte, si piuttosto in altre valli all'interno, e lungo la doppia marina;—penso finalmente che le numerose caverne del suolo istriano visitate e frugate con diligenza debbano fruttare importanti rivelazioni, se non alla scienza, certo alla storia del nostro paese.

“Molto di questo non è oggi che ipotesi, ma è ipotesi confortata da fatti.

“Oltre le cose avvenute più sopra, sta il fatto che anche il sig. Carlo De Franceschi, Segretario della Giunta provinciale, ha trovato sopra non so qual colle del P Parentino un cucchiaino di argilla biancastra, a corto manico, rozzamente conformato, e come par, cotto al sole,—e che il sig. Ingegnere Pietro Dr. Madonizza di Capodistria tiene una ruota pure di cotto grossolano rinvenuta in una delle valli vicine. Non pretendo che cotesta ruota sia appunto un indizio di abitazioni lacustri in quella valle,—non corro sì rapido,—pure essa non è arnese romano, nè balocco moderno. Ora in questi casi bisogna attaccarsi a ogni filo, e prima di affermare o negare, bisogna cercare, indagando argutamente tenacemente le prove. Io oggi non affermo in modo assoluto, bensì espongo e propongo, contento abbastanza di poter offrire qualche non ispregievole indizio ad una scienza positiva che in pochi anni ha dissepolto un mirabile complesso di fatti, la luce dei quali sperdendo tenebre addensate da secoli giova e gioverà sempre più alla ragionata indipendenza e quindi alla vera grandezza dello spirito umano.

“Le presenti mie confessioni l'avranno di certo persuasa ch'io non sono un paleontologo, nè un paleo-etnologo: posso io sperare di più? ch'esse la spingano a visitare la piccola ma interessante Istria? Visitandola a parte a parte, Ella s'accorgerà di cose che da Trieste non vedonsi abbenchè Istria e Trieste sieno uno stesso paese. Desidero che possa farlo.—Ella troverà non solo in Albona, ma in ogni Terra dell'Istria persone premurosissime di accompagnarla nelle sue escursioni, e per agevolarlene il non facile compito, e per apprendere da lei il modo più sicuro di fare e di proseguir le ricerche. A Pisino non tralassi di vedere il così detto Castellar dei Bertossi. Le sarà guida il signor Antonio Covaz che intende egregiamente a studi geologici e segue con grande fiducia i progressi della scienza nuova.*

“Questo è, onorevole signor Ingegnere, tutto il più ch'io possa oggi dirle delle cose mie e delle cose dell'Istria relativamente alle età della pietra. Ne metta a parte, prego, il sig. D. M. e, se lo vuole, anche i lettori del *Cittadino*. Forse il vedere ch'io senza capitale di scienza, colla sola buona volontà e un poco di perseveranza, anche in mezzo a lunghe distrazioni ed interruzioni, sono pure riescito a risultati di qualche valore, forse, dico, invoglierà altri ed altri a proseguire, a ripetere, ad allargare le avviate ricerche, e così la mia ipotesi sarà o amplamente confermata, dai fatti, o ridotta entro più giusti confini. Se non ci avrò guadagnato io, che non importa affatto, ci avrà guadagnato la scienza, la storia, il paese che importa moltissimo.

‘Gli errori stessi
Giovan sovente a dar più lume al vero.’

“Grato in fine alle cortesi, troppo cortesi, espressioni che ha voluto usare a mio riguardo senza ancora conoscermi di persona, e desiderosissimo di fare appunto la personale di lei conoscenza, chiudo oggi collo attestarle la mia ammirazione e coll'augurarle la letizia di qualche importante scoperta qui nel nostro bene amato paese.

“Di Lei, Sig. Dottore e Ingegnere,

“Obbligatissimo,

“TOMASO LUCIANI.

“Venezia, febbraio, 1870.”

* Sig. Covaz, of Pisino, Deputy of the Istrian Diet, is still studying the glacial era in Istria.

The example of these eminent men has done some little towards abating the exclusive rule of the Almighty Florin, the pure and simple worship of the Golden Calf, at Trieste. Amongst the little band led by them was the late Dr. Carlo Buttazone, whose immature death at the age of 39 is still deplored. Born at Trieste in 1833, he took the degree of LL.D. at Vienna and, returning home in 1869, he began practice in the town of Trieste. But he preferred the historico-archeologic department of study to all professional pursuits, and he devoted himself for life to illustrating the past of Trieste, Istria, and Friuli. His extensive reading, his perspicacity, and a fine critical spirit won for him the applause of experts, and he has left a heap of manuscripts, which will, I hope, see the light in the pages of the *Archeografo Triestino*.*

Another eminent scholar is Dr. (LL.D.) Carlo Gregorutti, of Trieste, also an advocate; he is at present unfortunately incapacitated by illness from pursuing his interesting studies. This short compendium, you will perceive, hurries over a subject which for adequate treatment would require more time and space than you can afford. Suffice it to show that Trieste has a right to be proud of her sons.

PART II.—VISIT TO THE CASTELLIERI.

AND first of the name. The Italian population of the cities and towns apply indifferently to this class of ruins the terms *Castellaro* and *Castelliere* (old castle); the latter is a corruption of the corrupt and “dog-Latin” *Castellerium*. The Veneto-Italian dialect contracts the word to *Castillier* and *Casteller*.† The mixed Slav-speaking peoples of the hamlets and the country parts use some form of *grád*, a fenced town, e.g., *starigrad* (old town), *graddaz*, *gradina* (the ruins of an old town), or *gradischia*.‡ As a rule, they are eminently ignorant of remains lying within a few paces of their doors, and the unwary inquirer will often be led for a quarter of an hour—that is to say, an hour and a quarter, if not more—through thorns and over natural tumuli of limestone, to see some crumbling Venetian castle, which has always been destroyed by “Attila sævissimus.”

* The *Archeografo Triestino*, (edito per cura della Società del Gabinetto di Minerva. Nuova serie, volume terzo. Fascicolo iii. e iv., Novembre, 1871, e Gennaio, 1873. Trieste, Tipografia di Lod. Hermanstorfer, 1872,) gives a short necrological notice of Dr. Buttazone.

† In asking for prehistoric weapons, the stranger must describe them to the Istrian Slavs as “*Kamenica strevla*” (a little stone of lightning or arrow-head); to the Italian as *Fulmine*, like the *Pedra de Corisco* of the Brazil; and even then they will not understand him. Some of the axes have been used as touchstones, and many of the arrow-heads have disappeared after serving for flints wherewith to light pipes.

‡ There is an important village of that name (*Castellier*) a few miles to the north-west of Parenzo, and a *Monte Castellier*, to mention no other instances, is found north-east of Umago. Near the latter, I am told, lie the extensive ruins of the old Roman city “*Siparia*.”

Dr. Kandler having determined the Castellieri to be Roman camps, so disposed his "rete" that two points were always in sight for convenience of signalling, and provided many eminences with buildings, which, according to the best local observers, never existed. The experienced eye can always detect at a distance the traces of an earthen ring or ellipse formed by levelling the summit, and the gradual rises of the roads, or rather ramps, which are as a rule comparatively free from tree and thicket. A nearer inspection shows a scatter of pottery, whose rude and sandy paste contrasts sharply with the finished produce of the Roman kilns, and the more homogeneous materials of modern times. It would be easy to collect a ton weight of these fragments: I forward a few for the satisfaction of brother Anthropologists. The tracing is defined by an unmistakable sign, the black earth, - which stands out so clearly from the surface of "Red Istria."*

The effect of ashes and offal, of débris and ruins, our *terricio nero* seems, in irregular and detached spots to prevent any growth but coarse grass and dwarf thorny shrubs. In a previous publication ("Unexplored Syria," i. 55), I have dwelt upon the facility which this "black malm," this rotten dark soil, affords in demarking the outlines of ruined cities, which, like Ba'albek and Palmyra, Tyre and Sidon, once occupied ten times the extent of their modern successors. Lastly, the existence of the Castellieri as pre-historic, not Roman, ruins is established by the discovery of stone weapons.

Upon the fringing ridges of the peninsula, the more enduring lime stone walls of the Castellieri generally define the enceinte. But in the interior, where the defences were made of the easily degrading sandstone, the chief guides are the earthen scarp, the pottery, the black earth, and the stone implements. Let us hope that increased activity may presently bring to light crania and bones which shall enable us to determine the race that occupied these interesting remains.

As a rule, the Castellieri crowned the summits of the detached conical hills and mounds, which, though moraine does not exist, appear to have been raised and turned by glacial action. Another favourite site was the Col or Pass; a third was the buttress or loop-shaped projection of the escarpment (the Icelandic *muli*, the

* The terra-rossa of Istria is believed not to contain a trace of organic and biological matter, and little or no lime: it cannot, therefore, proceed from the oxides that stain the nummulite and hippurite calcaires. An interesting study of this formation will be found in the "Excursioni Geologiche fatte nell'anno 1872. Da T. Dr. Taramelli Prof. Titolare di Storia Naturale." This geologist attributes the "red soil" to volcanic dejections, and he explains, by the disengagement of explosive gases from below, the formation of the "Fiobe" and the crateriform sinks of the limestone region, variously called entonnoirs, wetter-locher, busi, (*i.e.*, buchi pertusi, imbutiformi); Doline by the Slavs, and Inglotidors in Friuli. I have noticed these swallow-holes, locally termed "Jurah" in the Anti-Libanus ("Unexplored Syria," ii. 100, and elsewhere), and I cannot but think that the sinking of water through their crevices is often a sufficient agency. But I reserve this subject for future discussion.

Scotch *Mull*), which forms the banks and the ravines of the barathra or foibe.* Hence the peculiar appearance of many Istrian towns, such as Pedena and Galignana, which have been built upon these prehistoric sites. Viewed from below, they appear to be perched upon the summits of inaccessible rock walls. A crow's nest, with a stick driven through it, is the only object they suggest from afar, and they wear a peculiarly ghostly look, like the phantoms of settlements, when seen through the mists of a dark evening. Nor can they be called villages: they are towns in miniature, castles, and, in fact, not unlike the "Hof" which represented Vienna before 1856.

The cold heights preferred by some villages—for instance, that on the Monte Zucchero (or Sissol?), a southern prolongation of Monte Maggiore,—would show that the people had modes of defence against inclement weather. All, however, are not on high ground; the remains of a Castelliere are shown upon the low levels between the hamlet of Chersano (Carsianum?) and Lake Cèpich (Lacus Arsia), Istria's only lake. Nor are they confined to the continent; *e.g.*, two are found, according to Dr. Kandler, upon the greater of the Brioni Islands, and two in Sant'Andrea and San Giovanni on the sea south of Rovigno.

The enceinte was double, except where the approach, inaccessible to the spoiler, rendered one rampart sufficient, and the shapes were very irregular, being determined by the accidents of ground. Usually the front rested upon a cliff or rapid slope, and the typical formation of the whole is shown in plates 8, 9, & 10

The whole peninsula was at one time scattered over with these villages, and Fate has treated them with her usual caprice. Some have been carried off bodily, especially those lying near the lines of

* Some travellers have rashly denied the existence of "subterranean rivers." These sceptics seem to ignore the fact that they are common to every limestone region. They are noticed by Lt. Garnier in South-east Tibet ("Ocean Highways," March, 1874). Amongst the "Wonders of the (Triestine) Carso," ranks the Recca or San Canzian stream, which, dashing, at a perpendicular rock, disappears *in toto*, shows itself at three distinct air-holes, and after an underground flow of 25 direct geographical miles, reappears to form the classic Timavus. It is described by Strabo, Pliny, and all the older topographers. The word *foiba*, peculiar to this part of the country, is supposed by MM. Kandler, Taramello, and Tomasini to be derived from the Latin *fovea*, and the Greek *φωλιά*, a den or nest; the usual Italian equivalent is *fossa*, *caverna*, or *voragine*. I doubt the derivation: "fovea" does not explain the feature which Claverius calls *cavea montium*, and Tomasini (p. 179), "bucche ed aperture della terra." The Slav term is *jama*, applied at Trieste to the grotto of San Servolo. If *fovea* were the origin of the word, we should expect to meet with "foiba" amongst the Apennines. Possibly, like "Pola," it may be a remnant of the old Kelto-Thracian tongue spoken by the early races of Istria. Dr. B. Davis supplies me with a Cornish "fow," the Welsh "fau," and the Irish and Gaelic "fua-thais," a den, cave, or lurking-place of wild beasts. These are evidently Celtic congeners of *folià* and *fovea*. In this "foiba" we detect, strangely disguised, "the river Fluva," which Murray ("Hand-book of Southern Germany," Sect. xiii. p. 70.), causes to flow under the town of Pisino. Turnbull ("Austria," i. 13) mentions the grotto or cavern, but seems not to have asked for the name. The modern Greek term is not *folià*, but *katavothron*, and the features about the Copric lake and Cephalonian Argostoli exactly correspond with those of Istria.

modern roads. Others are in process of disappearance, being found useful for villages, and on the heights for the rude huts of the shepherd and the goatherd.* But where situation, which determines the "Eternal Cities of the World,"—Damascus, for instance,—was favourable, the Castelliere, as at Pisino,† became successively a castle, a hamlet, and a town, with the fairest prospect of being promoted to the honours of cityhood. On the other hand, Muggia Vecchia, in the Back Bay of Trieste, has in turn been a castle and a church-town, and now it is a ruin, whilst its neighbour, the Castellier degli Elleri is utterly broken, and Antignano is still a village. The chapel, as a rule, seems to have been a very natural sequence, and thus we can account for the fondness for high places which seems here to have possessed the ecclesiastical mind.

The following list of fifteen Castellieri in the territory of the Albona, which occupies the south-eastern part of the Peninsula, shows the total to be considerable. It was given to me by Dr. (LL.D.) Antonio Scampicchio, who warns me that the principal sites which hold out hopes of prehistoric remains may be reduced to five or six.

1. Cosliacco (*i.e.*, Costa de Lago, viz., Cepich and the Roman Caprinium?) al Castello, usually known as the Castelliere di Monte Zuccherò. The latter must not be confounded with the height of the same name near Pola.

2. Gradina di Cosliacco, on the way which leads from Villa Vosilli towards Fianona; this does not include the Castelliere between Chersano and the lake.

3. Sumber (in the Austrian military map, which abounds in name errors, Sumberg) upon the eastern escarpment of the upper Canale or Val d'Arsa (the Latin Arsia), to the left (west) of the road leading from Albona to Pedena. On the other side of the great ravine is the Castelliere of Oritz, a village about an hour's walk south-south-east of Pedena.

4. Gradina, near Sumber.

5. Starigrad dai Rusich, lower down on the eastern escarpment of the Val d'Arsa, in the territory of Vettua d'Albona; here was found an axe of fine black stone.

* A wise provincial law, "De capris non tenendis," found in the Triestine Statutes of A.D. 1350—1420, and renewed in 1844, forbids goats to be fed throughout Istria, except "alla corda;" that is to say, they may not wander about in flocks to the utter destruction of shrub and young tree. The peasantry complain of the far-sighted legislation, because the cheese is at 50 soldi the pfund. The only places where I found exceptions were on the sub-maritime tracts between Pola and Parenzo, and even there all sensible natives spoke of it as "una barbarie." The example of Istria and Iceland, which exterminated goats for injuring the house-roofs, should be followed by Syria and Palestine: the disforestation of the Holy Land is mainly the work of the *Capra domestica*.

† All are agreed that there was a Castelliere at Pisino-vecchio, on the hill west of Pisino, and my friend Sig. Antonio Covaz contends that Pisino itself occupies the site of a prehistoric village. The latter place, with its grand "Foiba," and its noble castle of the Counts of Montecuccoli, reminds travellers of the Ravine and the Kasabah of Algerian Constantine. It is a most picturesque place, well worth a visit.

6. Punta di Santa Croce, near Zamparovizza (map, Tzemparoviza), at San Martino, also in Vettua d'Albona, and east of the Val d'Arsa, the gorge that divided Italy from Liburnia.

7. Gradaz, near the mouth of the Canale dell'Arsa, over the Valle dei Toni near Point Ubas or Ubaz, the eastern jaw of the Fjord, in the Commune of Cerrovizza d'Albona.

8. Gradina, in the wood of Punta-Ubas, opposite Castelvechio, which lies west of the Arsa Fjord. It is also in the Commune of Cerrovizza d'Albona.

9. Gradina, near S. Gallo d'Albona, about a mile and a half south-east of the latter city.

10. Cunzi, which, being the best preserved of all the Istrian ruins, shall presently be described in detail.

11. Punta di Portolungo an inlet and port south-south-east of Albona. Here, they say, are found Roman remains in the shape of built tanks and a strong wall.*

12, 13, 14, 15. Four ruins of Castellieri, on the heights between Fianona (the old Roman port and castle of Flanona, which gave a name to the Sinus Flanaticus, near Quarnaro) and Zagorie *i.e.*, behind the Gora or mountain).

This list does not include Albona itself, where several prehistoric implements were found, nor the Gradina of Moschienizze in the Commune of Volosca, north of Albona. The latter can hardly be visited without the guidance of Sig. Tomassich, the civil and obliging inn-keeper of Moschienizze, the village which fronts the beautiful Quarnaro gulf.

And now bidding adieu to generalities, I will describe my late excursions in company of an old friend, Charles H. Williams, late of Bahia, to the half-dozen prehistoric buildings on the east and west of the Istrian Peninsula.

My second visit to Albona was so far unfortunate that Dr. Scampicchio was absent, being one of the deputies of the Istrian Diet at Parenzo. His brother, however, kindly sent with us an "indicatore," Marcos Juricich, who had some personal knowledge of the places about the Commune. After a glorious November morning, which whitened the valleys with hoar-frost, and which showed sea and sky blue and clear as in the arid regions about the Red Sea, we descended the zigzag road of Albona, and struck north-north-eastwards to the Cunzi hillock. It is a dwarf lumpy chine, about a mile long, disposed north-north-east to south-south-west, with lower lands on all sides. At this season the oaks, the scrub, and the blackberry bushes which here affect the neighbourhood of walls and rocks, are of a dull bistre hue, contrasting with the verdure of the Dolomitic valleys, the lighter brown of the hill curtain over Fianona, and the French-grey heights

* Sig. Antonio Covaz believes the old Istrian city of Nesactium, so celebrated in the Roman wars (B.C. 177), to lie south-east of Albona. He places it, not as usual on the Arsa, but at some distance to the south, on the Valle Badò, south-east of Monticchio, at a site called Gradina, which is described as the "King of the Castellieri." The peasants still call the place Va (in) Satzye. I shall visit this part of the country as soon as possible.

of the local Chimborazo, Monte Maggiore, whose crater-like summit, assuming, from certain rhumbs, the figure of "Arthur's Seat," forms the background. The Cunzi hillock is crowned northwards by Krini-brek (Cross-hill), a tree-grown conelet, which acts mile-post to the ruins. A Roman road defines the inland face; the outline is also traced out by an unfinished macadam.

The hill flank facing Albona is covered with heaps of stone, connected and detached: the latter suggest that the vineyard-huts, especially remarked about Pola, may be the relics of older forms. They are oven-shaped; the walls are of dry calcareous fragments, and flagstones, overlapping and unsupported by posts, compose the roofs—about Hums and Hamah, I last saw similar dwellings. Two grassy slopes, in places bearing signs of pavement, gently ascend the south-south-western flank, but the whole approach wants surveying. As the thickets are cut down every six or seven years, it will offer an excellent opportunity for a detailed plan.

After crossing sundry dry-stone walls dividing the property of the Barons Lazzarini from the upper part, which belongs to the Depangher family, we came in sight of the ruins, and all my visions of Nurbags and Talayots were rudely dispersed.

The Castelliere di Cunzi,* stands upon the brow of a slope rather than a cliff; and its frontage-wall has disappeared. The distance is about three-quarters of a linear geographical mile from the white-washed and conspicuous steeple of Albona, which bears from it 250° mag. Its builders certainly had an eye for beauty like Carthusians. In front lies the shallow and fertile valley of Ripenda, which is also the name of the Commune or Gemeinde, bounded by a tongue of land, at whose tip appears a stripe of ultramarine sea carrying many a boat. About 1,200 feet below,† and to the right, or south-east, lies the snug cove of Rabatz (Rabaz), the "marina" of the little old republican capital, whose ivy-clad castle walls may be seen through the thin wood. Beyond the Farasina or western canal of the great Quarnaro‡ gulf, lies tall Cherso (Crexa?), the Capri of the glorious bay of Fiume, and a white patch denotes its capital (142° magnetic). To the south-south-east (175° N.), rises Monte Ossero, a regularly-formed pyramid, at the extremity of Lussin island; and the eastern background, high towering in

* Baron Carl von Czoernig (junior) protests against my writing Cunzi as a Slav word for Kunzi (a corner?); the former would be pronounced Zunzi, and he declares the German has no right to turn "Bordeaux," *e. g.*, into "Bordoo." I have preferred Cunzi because it is the Italian form, at the same time confessing that Kunzi would be more correct. The guide, a Slav of Istrian family, pronounced the word Ghunzi, with the Arabic Ghayn (gh). In Dr. Kandler's map it appears, if it appears at all, as S. Antonio.

† The aneroid (compensated) showed 28.27, and the therm. F. 55°. But the Borina, or little Bora, was blowing, and the barometer at sea-level might average 30.50. On a subsequent visit it stood as 38.76. "Ripenda" appears to be the name of the whole sea-face as far as Fianona.

‡ The classical Sinus Flanaticus. Dante (Inf. ix. 213) writes, "Si come a Puola, vicino al Quarnaro," which is not for the purpose of rhyming with "varo." My friend Luciani assures me that the form is common in old documents, though now obsolete.

jagged summits against the cloudless sky, is the grand curtain of the Dalmatian mountains, the jagged Dinarian Alps; whilst the quaint mural crest of Monte Maggiore forms the northern horizon.

The brow of the fronting slope bends gently from north-east and south-west to south-west-and-by-west, and the whole length of the frontage in round numbers is 325 feet. At the edge begin the double walls, which gradually diverge till, at the north-north-western part of the oval furthest removed from the cliff, they leave an interval of 50 feet. Commencing at the north-eastern end, the inner enceinte, after 95 feet, shows a regular entrance, which is best explained by the accompanying sketch (No. 1), taken upon the spot. Some are of opinion that this most important feature is modern, but I failed to detect any traces of restoration, except about the crest, and in the proper right staple; the latter had been piled up with small stones to a height of 13 feet, when six or seven would amply suffice.* Thirty feet more led to a gap (No. 1), not a gate, and beyond it 145 feet showed us a second gap (No. 2 in the plan) opening to the north-north-west, which may or may not have belonged to the original. The southern arc measured 330 feet, and the total circumference was 565, whilst the diameter of the inner enceinte, from east to west, amounted to 250 feet.† The terre pleine showed a thick growth of young oaks and scrub, with natural slabs of limestone; neither here nor elsewhere did we see any loose heaps of smaller stones suggesting that the habitations were anything but the spoils of the neighbouring woods. There was a clear grassy space round the greater part of the inner walls answering to a rampart in modern fortification.

When laying out the village, the crest of the cone or buttress was evidently cut away in one or more places, leaving part of the original earth-slope to form the parapet-base. Upon this foundation were planted large blocks of limestone, sometimes measuring two cubic yards, in tolerably regular order, "*muros seccos*," invariably without mortar (malta), and never of cut nor worked blocks; the *tout ensemble* formed a rough architecture of the style commonly called Cyclopean. The inner thickness of the parapet was apparently filled with smaller stones, and the thickness varied from 18 to 31 ft. near the north-north-western gap. The inner scarp was steep and clean of rubbish; the outer or counter scarp, disposed at the natural angle, was covered, for about 30 feet (sketch No. 2), with mossy stones, which have slipped, or been thrown from their position, and the Cunzī, like the other ruins, was closely invested by a thick growth of scrub and thorns. The enceinte between the outer and inner walls was mostly grass-grown, and here I should suggest were kept the cattle and goats belonging to the villagers. In the space

* By the kindness of Dr. Scampicchio, I hope presently to supply a photograph of this feature, so important in determining sundry details of restoration.

† The external wall of the ellipse is said to be 440 paces (=1,100 feet) in circumference; but I did not measure it.

between the two, old Marcos showed us a circular digging which a "Prussian" had attempted; he assured us that it yielded scant results.* The black earth and broken pottery here as usual dotted the wall, and at the Museo Scampicchio I was shown twenty-three fragments,† whose finer paste suggested Roman origin. Two earthen vessels were also found; the double-handled specimen may be of Latin make; the badly-baked single-handled pot is probably of earlier date.‡

I cannot end this sketch of the Castelliere di Cunzi without an expression of gratitude to the Depangher family, whose enlightened care of the ruin has preserved it from the plundering which has afflicted its neighbours with the "abomination of desolation."

The next Castelliere which we visited was on the right of the highway from Vragna the Raven,§ across the Col of Monte Maggiore, leading to Fiume. A great gash in the western flank of the mountain bears upon its right lip the little settlement of Stara-Vragna (Vragna Vecchia), the Roman Aurania, and near it a "Mull," a loop-shaped buttress, with a narrow neck, was pointed out to us.|| The ruins of a castle, probably Venetian, here concealed all traces of the Castelliere—if ever there was one. But higher up, near a farm-house known as "Nezegl" (Nezelj a Priceyk), we saw the arc of an enceinte whose slope nearly reached the right of the road: it offered nothing new.

Our third excursion in the neighbourhood of Albona was to Dubrova, a large country house belonging to a family of wealthy landed proprietors, the Barons Lazzarini. Our guide on that occasion was Sig. Ernesto Nacinovich, who had hospitably invited us to take up our quarters for the night at his father's house in Santa Domenica. A walk of about twenty minutes to the north-north-east, up a rise garnished with the usual scrub and thorns, placed us at the large settlement whose northern part is called Stermatz, and the southern Stari-grad. This Castelliere faces the shallow Prodol valley; it has been almost destroyed, and its only point of interest is the adaptation of the irregular enceinte to the exigencies of the ground.¶

* I was wrongly told that this digging had been made by the great classical scholar and historian, M. Mommsen.

† Some of these are remarkably heavy and thick, reminding me of the specimens which I brought home in 1871 from various parts of Syria and Palestine.

‡ I have secured a photograph of this interesting specimen.

§ The Slav word is Vran, a linguistic analogy with the Scandinavian *Hrafn*, the Teutonic *rabe*, and the English *raven*. Here the radical consonants are *r* *b* (or its congeners *v* and *f*), and, curious to say, we find them in the Hebrew *orab* and the Arabic *ghurab* (a raven), which notably gave rise to *corvus*, *corbeau*, *crow*.

|| The inn-keeper at Vragna calls it "Sito Vorljake va Bukovike pod (under), Stagio (or Stago) in sito Stara Vragna sotto Monte Maggiore." If the traveller does not ask precisely, and with the words used by the natives, he will fail to find his place.

¶ Sig. Nacinovich also showed me a Dolina (i.e., *dol*, *thal*, *dale*, and *vale*), a crater-shaped hole in the limestone field to the north of Santa Domenica, popularly known as Venezia. It contains two caves, one with a single, the other with a double entrance, respectively opening to the south and north. I reserve, however,

Before leaving Albona we inspected the Museo Scampicchio, and found some interesting specimens of stone weapons. All were of the polished category popularly called neolithic, and indeed throughout Istria, which is utterly deficient in flint, I have seen nothing of the ruder, if not older, type. With the kind permission of the owner, tracings were made, and the following is a list of the most important articles. None of them presented any novelty of shape, and, as usual, they were mostly composed of stone which is not produced in the country. These tools and weapons seem to have travelled as far as cowries.

1. The two arrow-heads of silex, one with, and the other without, a tang (see Plate 9); were found in a kitchen midden at Vermo, near Pisino, and Sig. Antonio Covaz lately showed me a third from the same place. Vermo has supplied land and sea shells evidently used for food, and the split bones of mammalia, bound in a calcareous matrix, and forming an ossiferous breccia.*

2. The tracing in plate 9, of course "life size," is that of the magnificent greenstone axe, the largest specimen of its order exhibited at the Anthropologico-Archæological congress of Bologna. It has been for half a century in the Luciani-Scampicchio family, which it has happily and effectually protected from the "thunderbolt."

3. Albona itself has supplied five specimens, a pestle or rubbing stone of pyramidal shape; a black axe, which might serve as a touchstone; a small and very graceful axe of greenstone; a third of similar material with a sharp edge and the fragment of a fourth axe.

4. From Pedena, evidently a prehistoric site, which has just built at the expense of 12,000 florins a campanile (belfry), at least large enough to lodge the whole village, were brought a fine axe of greenstone and a polished edgeless cube, concerning whose use I am doubtful.

5. An axe from Parenzo.

6. A polished fragment from Fianona.

7. An axe from Cherso Island.

an account of this formation for another paper upon the cave dwellings of Istria. Cav. Luciani writes to me as follows:—

"Ma giacchè è deciso d'intraprendere uno studio serio, io la prego di non limitarlo ai *Castellieri*, bensì di estenderlo anche alle caverne. Molte le diranno che sono inaccessibili, impraticabili, che furono visitate da altri, che in esse non hannovi indizii di abitazioni o di resti umani. Non si acquieti a tali asserzioni. Il paese non è instrutto abbastanza in questo ramo di scienza nuova, e per conseguenza i più sono increduli, fanno difficoltà e creano impossibilità che non esistono in fatto. Veda con proprii occhi e tocchi colle proprie sue mani. In Istria come dissi nella lettera al Dr. Buzzi, bisogna distinguere le voragini (volgarmente *foibe*) dalle caverne (grotte). Le prime per loro natura, precipitose e perpendicolari, inabitabili veramente, lasciamole pure al geologo; ma le seconde che si aprono sui fianchi delle costiere e s'inviscerano orizzontalmente, o quasi, nelle montagne, tocca a noi esplorarle attentissimamente, perchè sotto la crosta stalagmitica contengono, o certo possono contenere, l'incognita dei primi abitazioni selvaggi."

* I reserve the subject of ossiferous breccias in Istria and the Dalmatian Islands for a future paper.

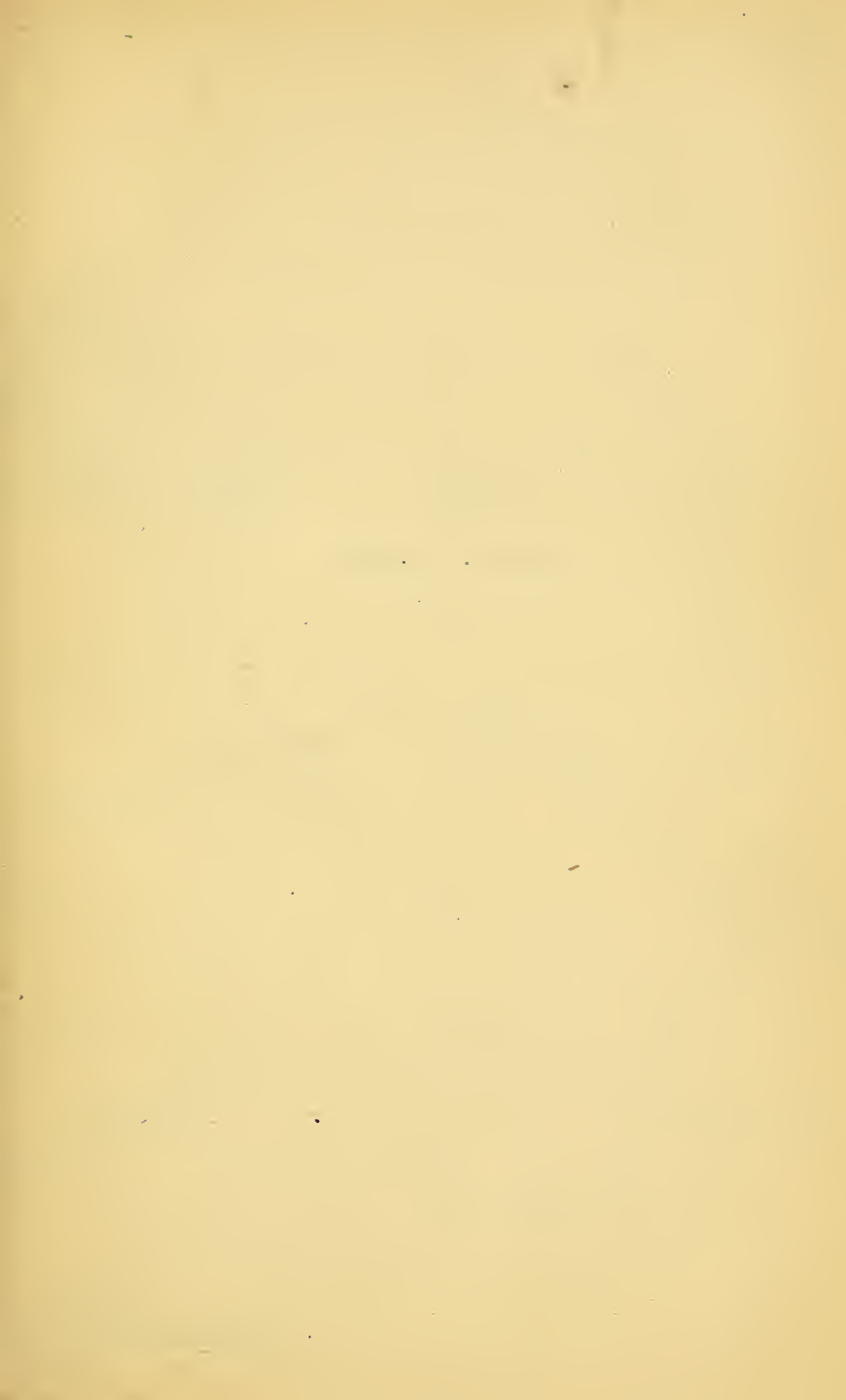
8. A polished black stone from Chersano, apparently an axe, but partly of adze shape.

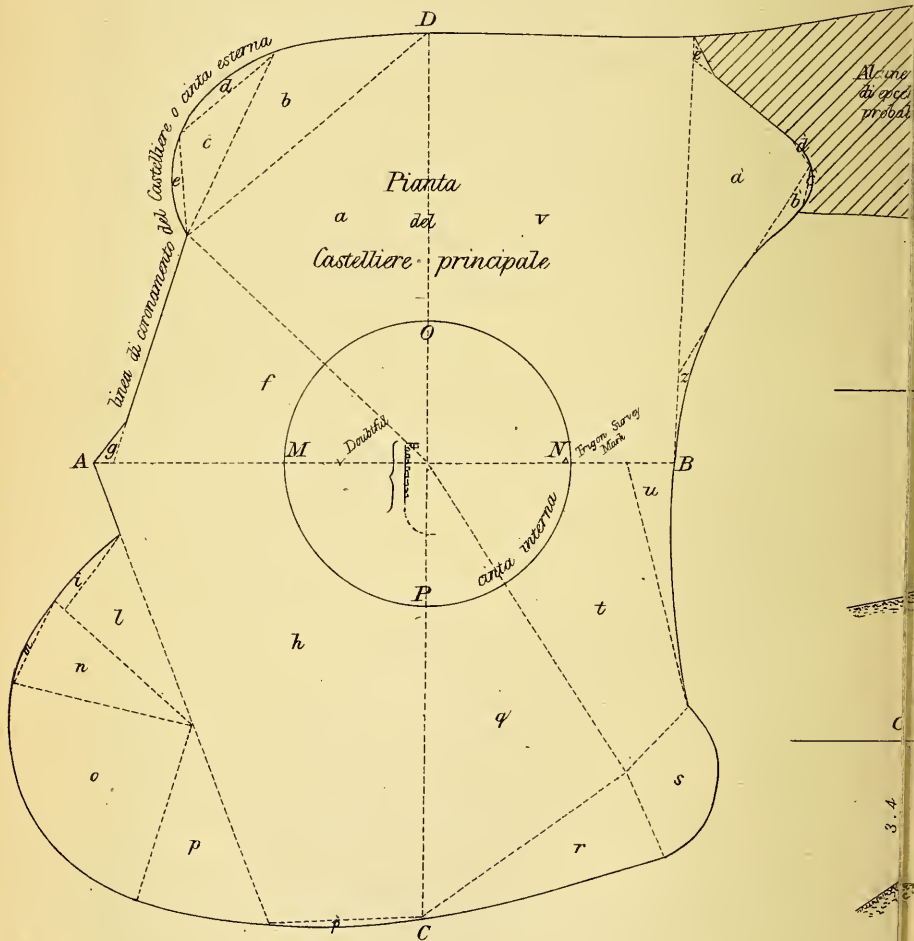
After bidding adieu to our kind hosts we drove over to Pola, which my companion wished to visit, and passed a pleasant day mostly at the I. R. Naval Club, in company with our compatriot Commander J. William Greaves, and his brother officer, Captain Edward Germonnig, both of the I. R. Austrian Navy.* Thence we travelled† by unpleasantly devious roads up the western coast of the "Eastern Piedmont," greatly enjoying the change of climate. We had endured two days of winter, ending in torrents of rain with thunder and vivid lightning, and one of melancholy grey sky and furious north-easter, which, cooled by the snows of the Monte Maggiore and the "Tschitschen Boden," might have been claimed by the coast of Essex. But on the western shore there is a delicious atmosphere, cold, clear, and calm, reminding me of Upper Sind in the north-east monsoon season. "Blustering Boreas," which on December 7th, 1873, upset a coach, and overturned a train of five carriages near Fiume, killing three and wounding eight passengers, here ceased his bullying, and the only symptom of his course across the bleak and barren highlands of Styria was a pellucid sky, with the driest and the most bracing air. The aspect of the Adriatic, and the forms of the shelving rocky shores, suggested to both of us reminiscences of Malta at its very best.

At Rovigno, the largest city of Istria, far-famed for a modern (A.D. 1725) and somewhat barbarous Basilica of SS. George and Euphemia, a find had lately been made in a cave which supplies Roman remains; they had been sent to Cav. Luciani, who occupies in these regions the position won for himself by my friend, Mr. George Petrie, of Kirkwall (Orkneys). Thence a dreadfully devious road, caused by the Canal de Leme (Cullæus Limenis), which still awaits a carriage ferry, led us to Parenzo, the actual seat of the Istrian Diet. My object in visiting this town was to obtain permission to copy the Rete de' Castellieri left in manuscript by the late Dr Kandler. I hasten to say that my application was at once successful. The Provincial Captain of Istria, Sig. Francisco Vidulich; the Vice-Captain, Dr. Andrea Amoroso; and the Secretary of the Diet, Sig. Carlo de Franceschi, an archæologist who is carrying on Dr. Kandler's work, immediately supplied me with a card to Madame Giovannina Kandler-Branchi, the only child of the venerable antiquary. On the

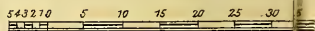
* There are four undated revolvers, pistols, and carbines, in the I. R. naval arsenal, concerning which Captain Germonnig, the Director, has kindly promised me to make enquiries.

† The reader is again warned against his "Murray" ("Handbook Southern Germany"), who tells him (page 460) that Peroi, seven miles from Pola, is a small village inhabited by a Greek colony, still retaining the language and picturesque costume of their country. On a blazing August morning M. de Perrochel and I walked some five miles to see these "Greeks." We found a few households of Albanians and Montenegrins, who colonized the place in 1657, and who are "Greeks" only in religion. The "wretched inn" of Dignano, mentioned by Turnbull, also has greatly improved under the frequent visits of naval officers from Pola: the Albergo Ferrara is now one of the best in Istria.

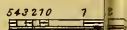




Scala per la sua

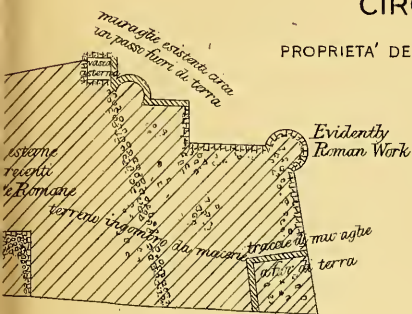


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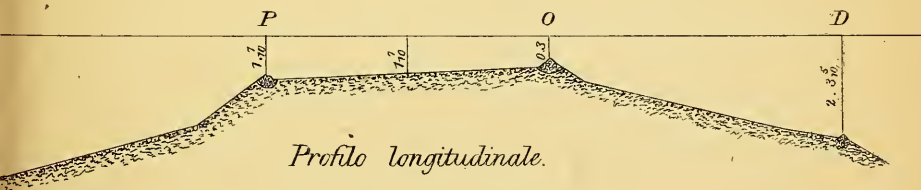
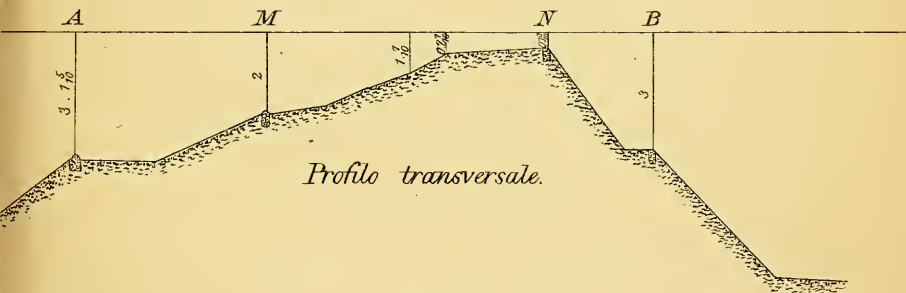


TRACCIA
DELL'ANTICO
CASTELLIERE CHIAMATO DI MONCASTELLI
SITO NEL
CIRCONDARIO DI CERVERA

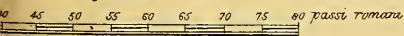
PROPRIETÀ' DEL MARCHESE GIANPAOLO DE POLESINI DI PARENZO.



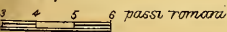
NB. Al punto N il terreno è più elevato del Castelliere.
Sopra il mare ha 85 piedi venesiani d'altezza.



one e lunghezze.



ze dei profili.



day after our return to Trieste, the maps were placed at my disposal. Their great size, a photograph of the Cadestrale map, and complexity of detail, render an exact copy far too cumbrous and detailed for popular use. I, therefore, requested Dr. Angelo Quarantotto, C.E., to insert what is requisite in the printed map of Istria forwarded to you with this paper.

Parenzo, however, deserves to be visited for its own sake. It is distinctly the most Roman city in the Peninsula. The Cloaca Maxima, some five feet high, runs under the principal street, which is regular, and lies parallel with the Marina; the temples of Mars and Diana still exist; and two squares preserve the name of Prætorium, somewhat corrupted, and Marforio or Forum Martis. All around it linger traces of Roman occupation; the reefs of limestone are pitted with Sarcophagi, sundry of which face east-west and with those square shallow basins (Vaschi), which Syria still determines to be ancient oil presses, wine presses, and vats for preparing lixivium. It is not a little startling to be shown the farm of Claudius Pansa, as if that ancient worthy had just departed this mortal life.*

At Parenzo I was fortunate enough to find Dr. Antonio Scampicchio and Sig. Antonio Covaz. The former introduced me to his kinsman, the Marchese Gianpaolo de' Polesini. Excursions were hastily planned, and on the afternoon of the same day we set out to visit Moncastello (*i.e.*, Monte Castello), in the Cervera property,† belonging to the Marchese. Driving along the shore, we reached the place in a sharp half-hour, and a walk of a few minutes over low ground and up a dwarf rise took us to the Castelliere. The accompanying plan, which I owe to the owner's courtesy, will obviate the unpleasant necessity of description. Here the chief novelty is that the Romans evidently occupied part of the prehistoric site, whilst the nucleus is clearly shown by its warty hill.

Next morning we resolved to walk to Santangelo, which lies some forty-five minutes south-east of Parenzo, on a rise somewhat off the Roman road. It is rendered conspicuous by the ruins of a comparatively modern church, dedicated to the Invocation which gives it a name. This Castelliere has the normal indications—grassy ramps, an earthen crest, black soil, and an abundance of broken pottery; but there are certain novelties of detail. The flat rocky plateau, with precipitous sides, where the church stands, was apparently an acropolis or capitol, which required no artificial defence, and the only sign of enceinte is on the lower slope which ends the smooth terre pleine. To the north was a remnant of an entrance, four slabs placed as steps, which might, however, have been made for the convenience of pilgrims, but the traces of a gateway below

* The exact position is the modern Cervera (Latin, *Cervaria*). Dr. Kandler places "*Figlinæ amplissimæ patrimonii Cæsaris*" on the shore north of the Castelliere, and great quantities of broken pottery, useful when compared with the prehistoric remnants, are still found. Indeed, the whole of Western Istria abounds in "*Figlinæ*."

† Istria still preserves the word *stanzia*, which, in the Spanish form *estancia*, means the breeding estates of the Argentine and Uruguay Republics.

the eastern crest suggested a much older origin. A sarcophagus (lidless) was found cut in the rock rim of the acropolis; it fronted east-south-east to west-north-west; the length was 1.80m.; the greater breadth 0.60m., and the lesser 0.51m.

This portion of the Istrian seaboard is a smooth and gentle slope, everywhere studded with natural tumuli of red earth, covering cretaceous limestone, and again showing possible glacial action. The land is said to be gradually subsiding, but I have as yet failed to find proof of this process.*

The nearest wart to the north bears the name of Mordelle, and here modern quarrying has obliterated many traces of the old Castelliere; at a distance the knobbed cone looks like a large modern fort. To the south-east also rises the Pizzugghi tumulus, whose notched outline and ascending terraces at once reveal its quality to the experienced eye. Dr. Kandler located other "Roman camps" at Monghebbio and at San Servolo, the latter a fourth tumulus; but the Marchese, who is familiar with the spot, absolutely denies that any signs or traces of habitation are to be found there: the same was said of Punta Grossa, the 4th point south-south-west of Parenzo along shore, and of the adjoining southern point where "Castelleria" are also marked.

We returned to Trieste delighted with our tour; I fairly recommend our example to those of my countrymen who are willing to undergo a modicum of discomfort, especially the utter want of fire-places and fires in winter. The climate, which I have now tried in August and December, is healthy, except in rare parts, and everywhere essentially temperate, as the Persiate poet sings:

"Na garmi' sh garm o na sardi' sh sard."

"The heat is not hot, nor its cold is cold."

—And, as the Anonymus (Scymnus?) describes it (382),

οὐ γὰρ νιφετώδης οὐδ' ἄγαν ἐψυγμένος.

"Non nivosus enim neque nimis frigidus."

The roads are as a rule excellent, and horses and mules are everywhere procurable for the bye-ways. In the chief towns, whose actual aspect is that of the old Venetian cities, the interiors often preserving the wild romantic cast which distinguishes the pyramid-shaped fastnesses of the higher Apennines, inns of some kind are invariably to be found. In the country quarters there may be difficulties about bed and board, and "*niente!*" is often the answer to *cosa c'è da mangiare?* The surly landlady at Chersano informed M. de Perrochel and myself that the house was occupied by herself, her husband, her mother-in-law, her children, and a widow lady who happened to be staying there, but that, as the weather was fine, we could sleep under a tree. On the other hand, the good host and hostess of the Canfanaro inn insisted, despite all my objections, in vacating the marital

* At Rovigno there is a tradition that the island upon which stood the ancient city Arupinum, has sunk bodily. Sig. Luciani (p. 40, "L'Istria, Schizzo-Storico-Etnografico") places the event about A.D. 740.

four-poster. The peasants were everywhere as remarkable for their civility to strangers, as for their temperance and orderly conduct; they show a variety of interesting types, and they preserve their picturesque costumes, which everywhere vary. The townsfolk are not always so courteous; the out-of-the-way places contain not a few "vadios" as the Brazilians call them—mean whites, who mistake impudence for dignity—and throughout the country there is a truly lamentable backwardness. The unfortunate women of Albona, like their prehistoric sisters, must fetch and carry on their backs huge pails of water, because cisterns are wanting, and the city is not supplied with the simplest mechanical means for raising the necessary of life.

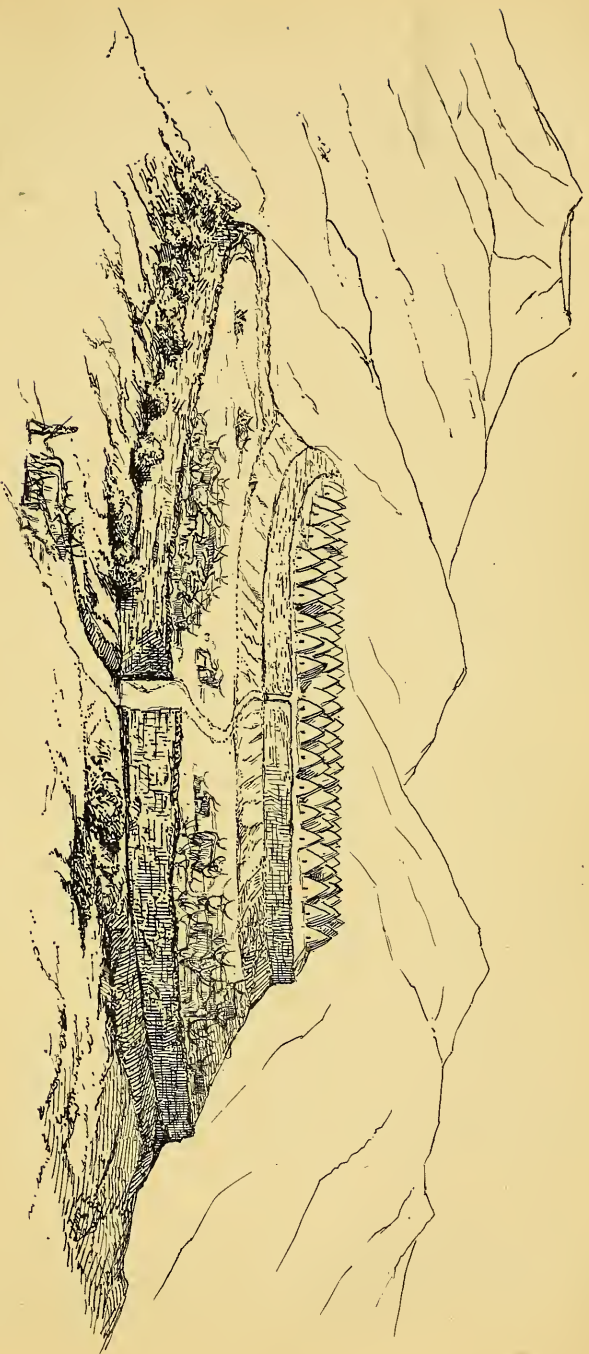
I would specify Pinguento and Fianona, where the burghers will laugh in the foreigner's face, carefully warning the reader that nothing can be more courteous than the gentry. My lamented predecessor (Charles Lever), wrote upon this point:—"There is probably no prejudice so strong, so rooted, and so indelible in the hearts of the masses, as the dislike of the stranger as stranger, and the desire to make him feel as painfully as possible that, in every point on which he differs from the natives in dress, manner, or demeanour, he is so far deviating from the standard of all that is decent, proper, and becoming. The amount of this feeling in a people is the best measure of their advancement in civilization." I should not have noticed this point had not the conduct of the Istrian *bourgeois* contrasted so painfully with the civility of their own order throughout Italy, and with the *bonhomie* of the Slav peasantry.

This backwardness, this sluggishness in progress is not confined to Istria. It extends all along both shores of the Adriatic. Allow me briefly to tell "the tale of the two cities," and to contrast their conditions in the concisest way. (San Salvador da) Bahia, one of the many ports upon the Brazilian sea-shore, was hardly invented, three centuries and a half ago. Besides her railroads and her lines of steamers, she has two street tramways, and she is proposing a third. She has a lift connecting Basseville and Hauteville. She is building immense docks to increase the convenience of her noble bay-harbour, and she has spent large sums in bringing water to her doors, and building fountains, which are mostly works of art. Trieste dates as a city from the days of the Romans, and she is the chief port and the great centre of commerce, the "Emporio Mondiale," in the wealthy and powerful empire of Austria. She has not a yard of street railway. A lift to the Carso has been proposed for years without being begun. It is easy to walk to Opschina in an hour, about the same time that the fastest mail train takes to reach it. A tolerable natural roadstead bids fair to be silted up because the lighthouse island (Batteria Leuch-Thurm) has been connected with the main land by a dam instead of arches; and a huge system of stone moles has blocked the bottom of the bay, with a wilful waste of some sixteen millions of florins—a sum that must be doubled before the new port can be used. The Opera House is old and unclean, fit only for a pauper country town, and the rich city

rests content with the model of a new theatre. The water supply, despite half a dozen projects proposed since 1835, is a disgrace to a civilized community. And why? Because a sterile politic occupies the immense amount of talent and energy which should be devoted to progress; because inveterate party feeling, which shows itself by throwing squibs and petards amongst women and children, stands in the way of all improvement. Upon every conceivable proposal there are, and there must be, the well-packed bundles of opposite opinions, and the unfortunate city, like the animal in the apologue, knows not which way to turn. Yet Trieste is a century in advance of Padua or Verona.

It is not difficult, with the aid of old experience and a little imagination, to restore the ancient savage condition of the settlement; and the traveller, especially the African traveller, has the advantage of having lived in prehistoric times. Tacitus says of the Germans, "Urbes habitari satis notum est vicos locant, non in nostrum morem, annexis et coherentibus edificiis; suam quisque domum spatio circumdat;" but here we can allow only passages between the houses. Reasons have been given for believing that the village was of wood and of thatch, rather than of stone: "imbrem culmo aut fronde defendunt" (Senec de Prov.) and "casæ more Gallico stramentis tectæ." We must prefer the conical or bee-hive-shaped huts of the lower races to the squares and parallelograms which mark a step in civilization. The walls of the enceinte or enceintes will be six or seven feet high from without, and three or four within, allowing the war-men to use their arrows, javelins, and sling stones; while a clear space, where the youths keep guard with axe and spear and club, separates the huts from the bulwark. The gateway or gateways will be closed by fascines of thorns, especially the Spina Morocco (*Paliurus aculeatus*), the Umm Ghaylan (*Mughilan*) of the Arabs, whose crooked armature renders it a true "wait-a-bit," backed by tree-trunks forming stout palisades. Tomasini allows trenches and wooden stockades, but the latter are not necessary. The habitable area inside measures 24,000 (=200 by 120) square feet, and allowing 200 to each hut, the village will contain a total of 120 hearths. Reducing this number to 100, that there may be room for yards and passages, which take the place of streets; and giving a minimum of five to each household, we have for our village a posse of some 150 fighting men, between the ages of 18 and 55. As the territory of Albona contains some twenty Castellieri, the population of Eastern Istria would not number less than 10,000 souls, if such term can be applied to men who had only ghosts—sprites, not spirits. This means that the inhabitants, though an alpine and ferocious race, supported themselves by some form of agriculture; that deer, bears, and wolves were not rare in the mountains, and that hares, foxes, badgers, and martens (*Mustela foina*) were common on the plains, as they still continue to be. There is no sign of a temple, the old Istrians, according to Lucian, worshipping tree-trunks and rocks—rank Fetishism. Possibly, like the Germans of Tacitus, they adored earth, or, like those of Cæsar, they venerated

*The Pre-historic Village and Castle in
Isria restored by R. F. Burton.*



the sun, the moon, and fire ("Vulcan, Agni devta," &c.). They would have a determined creed as they advanced in civilization. At last, according to Justin, (ix. ?) the Istrianorum Rex fought the Scythians, and compelled the latter to beg aid from Philip of Macedon. Moreover, Martianus Heraclensis speaks of the "Thraces, Histri dicti," and we know from Herodotus (v. ?) that the Thracians, after the Indians, were the greatest of barbarous nations. They penned their live stock between the outer and inner walls, whose entrance or entrances they blocked up with equal care. A total want of water-supply shows that the days of sieges had not dawned, and that the simple act of taking refuge within the enceinte determined the retreat of the attacking party.

I will now invite you to enter with me the prehistoric hut. It is wigwam or sugar-loaf-shaped, the roof-tree being an oak felled by fire and by the slow and painful labour of the stone-axe. The doorway, without door, is between three and three and a half feet high, to ensure alternate warmth and coolness and to defend from flies; it also acts chimney for the smoky fire, which in wet weather is built anywhere upon the floor. The genial blaze serves to clothe the inner thatch with a fine mellow hue, and with long stalactites of soot, depending by way of ornament. Another use is to purify the ground, which, without an occasional coat of ashes, would be intolerably unclean. There is no attempt at a partition dividing parents from children; but our savage, who is certainly a polygamist, turns his adult progeny out of doors as soon as possible; his wives may be tolerably well conducted, but the less we say about his daughters the better. Against the walls hang his weapons—his club, his spear, his bow and arrows; with the latter he shoots his fish, and his catamaran of beech-trunks, fastened with strips of hide, serves him for a canoe; his fishing-lines are plaited by the women, possibly of hair, probably of flax or tree-fibre. His stone pestle denotes the knowledge of some grain, which he pounds and mixes with water, like the *gofio* of the Guanches.* His salt-cellar is the sea; his pottery suggests the use of milk and curds, oil, wine, and perhaps mead and hydromel. He has no stores—no smoked nor sun-dried fish: he is improvident as he is omnivorous, at times revelling in venison, turbot, and the glorious palinurus of these seas; at other seasons supporting life by snail-shells, tritured bark, and whatever is edible. Most probably he is a cannibal. All primæval races were anthropophagi, according to the tradition of their friends, except a prehistoric village in Scotland, whose name I forget, but which has been claimed (by Scotchmen) as an exception to the general rule.† Unless famine

* [The "crowdy" of the Scotch, and the "tiste" of Central America.—C. C. B.]

† [Capt. Burton here refers to Mr. Samuel Laing's extraordinary work, "Prehistoric Remains of Caithness." Of course the local feeling amongst the Keiss men was very strong against Prof. Owen's supposition that some of their ancestors were cannibals.—C. C. B.]

presses, however, he devours only the dead bodies of his enemies. His cattle and goats—perhaps he has sheep—supply him with bedding, and at times with food ; he and his family wear the skins, with the hairy side in—not out, as is the absurd fashion of the highly civilized—and he tattoos, especially on the chest and stomach, a “poor man’s plaster,” as a defence against intemperate air. His only ornaments are the teeth of his enemies and balls of red clay, worn like necklaces, the earlier form of the bead.* His women are not wholly ignorant of spinning, and, if so, they make fishing nets. He spends his time dozing in the sun or sleeping near the fire, except when compelled by hunger to reap his corn, to hunt, or to lift his neighbour’s cattle, for which crime, if caught, he will be duly knocked on the head and eaten.

A similar state of things may still be seen amongst the Orobii or mountaineers of East-African Usagara : the latter, however, have abandoned cannibalism, and have learned the use of metal.

RICHARD F. BURTON,

Vice-President Anthropological Society.

Trieste, December 9th, 1873.

P.S.—Shortly after this paper was written, Baron Carl von Czoernig (Junior), of the Finance Department of Trieste, favoured me with the proof sheets of an able article which he has contributed to the Transactions of the German Alpine Club, entitled “Rundtour um den Monte Maggiore, Die Kohlengruben von Carpano, geschichtliche und vorgeschichtliche Notizen. Von Carl Freiherrn von Czoernig ;” it has been published in the “Zeitschrift des Deutschen Alpenvereins.” Redigirt von Dr. Karl Haushofers. Jahrgang, 1873, Band iv., Heft 2, München, 1873. We have thus written simultaneously and independently upon the subject of prehistoric Istria, although Baron von Czoernig visited the sites before my second excursion. Meanwhile, I have to thank my distinguished collaborateur for a copy of his plan of the Castelli di Cunzi, which I have thus been able to compare with my own that is now offered to the readers of *Anthropologia*.

DISCUSSION.

Professor LEITNER said it was very gratifying to find that Captain Burton had lost none of the vigour which had made him so deservedly famous. The drawing exhibited seemed to him almost identical with one he had seen of some Bhilsa topes ; but he would not on that account throw out anything like a suggestion of similarity between remains in such distant parts of the world. Captain Burton

* Sig. Carlo de Franceschi showed me some specimens, whose enlarged central holes proved them to be primitive beads ; those with smaller apertures may have been spindles, like the articles still used by sundry savage races.

had not made it clear to him whether these remains belonged to the Roman or the prehistoric period. The paper was, however, very valuable as an introduction to others, of which he understood it was only the first chapter. He would say, in reference to the terms Etruscan and Turanian, that they were constantly turning up; but when people wanted to know what they meant, they could not find out, and if a large X, signifying the unknown, were used instead, they would perhaps come nearer the mark. He would confine the term Turanian to the plains of Tartary, and Iranian to Persia; but Stonehenge, Buddhist monuments, and all manner of things, were now called Turanian.

Mr. CARMICHAEL said that if he rightly understood the description given of the Castellieri in Captain Burton's paper, similarities might, he thought, be traced to the hut circles in the valley of the Vibrata, on the eastern slope of the Apennines, described by a writer in a work presented to the members of the International Congress of Anthropology at Bologna in 1871, and also, perhaps, to the prehistoric dwellings in the Island of Pantellaria, in the Mediterranean, which formed the subject of an article in the Journal of the Italian Society for Anthropology and Ethnology. In regard to the suggestion thrown out by Captain Burton that the inhabitants of the Castellieri were cannibals, Mr. Carmichael thought that, as an addition to our knowledge of this obscure point in Anthropology, it might have been interesting if any proof had been found on the spot; but that, as far as the present paper went, no such proof appeared to exist. With respect to the name "Castellieri," Mr. Carmichael thought it might be worth while to mention that in Mediæval Italian usage, as, *e.g.*, in the contemporary biographies of St. Francis of Assisi, the word "castelli," was applied to hamlets or villages, as well as to castles, for it is constantly said that St. Francis went up and down the valleys of Umbria, preaching in the towns and "castelli," or villages, and one of the latest writers on this subject, Mrs. Oliphant, has drawn attention to that usage in her life of St. Francis.

Mr. JEREMIAH, Jun., M.A.I., said that Captain Burton's paper was a very valuable one, inasmuch as the prehistoric remains in Istria and the whole of the eastern coast of the Adriatic have hitherto received but slight attention from *scientific* Archæologists. What seems to be an important feature in the communication is the discovery of *circular* remains of dwellings, which reminded him of the *Cyttiau y Gwyddelad*, in Anglesey, and other western flanks of Penmaenmawr in North Wales, as well as the *bee-hive* remains in Cornwall and the circular dwellings in Ireland, which form, some antiquarians think, is indicative of Celtic origin. But one must not forget that the *only* probability is that the *Celtæ* may have adapted the circular form of constructing their forts and dwellings from preceding people or peoples, which, if the fact, renders this question one of the most difficult of solution in the whole range of Prehistoric European Archæology. It may even resolve itself into the simple statement that the alleged Celtic circles, that is, the circles extant in places where the *Celtæ* undoubtedly had

sway, are of comparatively recent origin, and were adopted by *post-Celtic* people from the usage of their predecessors, the sequence of ages becoming thus most difficult to determine. On the other hand, if the circles are really Celtic, and were used in the places where they occur by the *Celtæ*, then we shall have to explain how they got into *Istria*, which, if satisfactorily accomplished, will extend the known area of their former occupation farther than Anthropologists have been wont to allow. The restoration of hut circles by Captain Burton is, after all that may be said against it, perfectly legitimate upon the evidences he has gathered during his researches. But it forms a rather dangerous precedent, when the materials at hand have not been thoroughly worked. It must be regretted that so much collateral and irrelevant matter had been imported into an otherwise extremely important paper. All true lovers of Archæology must wish God-speed to the gallant author in the pursuit of *science*, which means the pursuit of truth.

Dr. CARTER BLAKE thought the present was one of the most important papers which Captain Burton had contributed, and that it was purely anthropological. The Castellieri appeared to him to be most like the structures which Mr. G. Tate had discovered in the Cheviot hills, especially those at the foot of Hedgehope and at Yevering Bell. They were unlike the hill forts of Sussex, inasmuch as the latter contained chipped stone implements, but the Istrian remains entirely polished stone. He believed that the remains from Pantellaria, to which Mr. Carmichael had alluded, were more ancient still. The Anglesey remains were probably merely Celtic, at least if the Towyn-y-Capel skulls were to be taken as a test of the characteristic skull formation. He hoped that Captain Burton would continue his explorations.

Mr. LEWIS said it would be sufficient for the mere Archæologist to know that the remains so admirably brought to their notice by Captain Burton were ancient and curious, but the Anthropologist would ask whether there were any such peculiarities about them as would identify them with those of any other part of the world. So far as he could see, there were no such peculiarities; resemblances, even to some of the British entrenchments, there might be, but none such as might not have arisen from accident. Captain Burton had accused the inhabitants of the Castellieri of polygamy, without, so far as he could see, any evidence to support him; and he thought that no European people had ever been addicted to it, abstinence from it being almost, if not quite, a racial characteristic among them.

The PRESIDENT said the paper was especially interesting from the fact that we have really no previous information on the subject. Neither Spon, in his *Italiänische Dalmatische Reise-Beschreibung*, nor Biasoletto, *Viaggio nell'Istria*, which records the travels of the king of Saxony, nor the charming work of Cassas, *Voyage Pittoresque de l'Istria*, give any account of the Castellieri. Captain Burton had made some queries on the local names, and had asked his (the President's) opinion upon them. The word *foiba* might corrupt from the Illyrian word

vårtba, which is translated “speluncus;” or, as suggested, it might be from Latin *fovea*, or its root, the Greek *φωλεα*; or it may come from the same root as the Gothic *ahwa*, i.e. *aqua*, prefixed by a digamma, or from *fluvius*, like *fiume* from *flumen*. A Celtic origin of the name Pola is improbable. The usual derivation is from *Pietas Julia*, which is not more far-fetched than *Fréjus* and *Friuli*, from *Forum Julii*; but Captain Burton thinks the passage in Pliny, “Pola, now *Pietas Julia*,” proves that the appellation Pola is more ancient. Pula is the Illyrian form of the name, and in that language *pol* is half; *polje*, *polja* is a field; and *puklina* is rendered “foramen.” Again, in old Italic inscriptions Pola is used as a prænomen for *Paula*, like the masculine *Polus* for *Paulus*. The wife of Lucan was named *Argentaria Polla*; and in Cicero we read of *Servius Pola*. There is a Pola river in Russia, and six places in Spain in which the word Pola forms part; as *Pola de Allande*. There is lake *Paola*, near Velletri; *Paolo* in Calabria; *Porto de Palo*, near Siracusa; and a *Porto Morto San Paolo*, a little north of Pola in Istria. Others say the Colchians, sent in pursuit of the Argonauts, not being able to fulfil their mission, took refuge in Istria, and founded Pola, whose name in their language signifies “exiles.” This seems to have originated in a verse of Callimachus (mentioned by Strabo) who calls the place *Αστυρον φυγαδων*. I do not find such a word as *pola*, with such a meaning, in any of the dialects of the Colchian district; but this proves nothing, because, with such imperfect vocabularies as we possess, we could not expect to find it. Bochart inclines to the derivation, and refers to Hebrew *pala*, *separare*, *auferre*, *amovere*. Such derivation assumes that the Colchian language had a like root word, and the Hebrew has moreover several words for “exile,” none of which are from *pala*. With regard to the name “Istria,” it is said that Colchians having sailed up the Ister, i.e., the Danube, passed from that river to the Adriatic, and that they named Istria from the Ister; but, as Spon observes, if the Colchians proceeded from the Ister to the Adriatic, they must have carried their vessels on their shoulders, inasmuch as there is no water communication between that river and the Adriatic. Something to this effect is mentioned by Pliny; only the latter makes them to pass to the Adriatic by way of the Save. Indeed Spon’s ludicrous suggestion seems to have been founded on the serious statement in Pliny. That the Colchians may have reached Istria from the mouth of the Ister, the Euxine, and the Dardanelles, is quite another thing. It may be here noted that Styria derives its name from the river Steyer (etymologically the same word as *Ister*), a small river which gives name to Steyer and Steyerdorf, and falls into the Danube just below Linz. Other derivations of the name Istria might be from the *Istri* or *Histri*, an ancient Illyrian people with whom the Romans had several wars. Again, Istria being almost surrounded by water, the appellation might be derived from the Celtic *dwr*, water; which, with a prefixed sibilant, becomes, in European river names, *Stour*, *Stor*, *Stur*, *Styr*, *Ister*, *Stura*, *Astura*, *Oyster*, &c., &c. Further, it frequently happens that large districts take their name from a town; as Yorkshire from York,

Derbyshire from Derby, &c. &c ; so that the name Istria may be also traced to the *Asturon phugadōn* of Callimachus, *αστυρον* being a diminutive of *αστυ* "a city," a name applied to Athens "par excellence." According to Paulus (*ex Festo*) and others, *Histriones* were so called because they first came from *Histria* ; but Valerius Maximus and Plutarch are of a different opinion, and they derive the word *histrion* from the Etruscan *hister*, ludio.

A P P E N D I X.

THE following is an interesting letter sent by a well-known name in Istria to the *Provincia* paper. It deserves reproduction *in extenso* and the reply has been added at full length :—

I CASTELLIERI DELL'ISTRIA.

In Istria si trovano in punti eminenti ed in numero considerevole delle rovine che portano in italiano la denominazione di "Castellieri" ed in slavo quelle di Grad, Gradina, "Gracischie," Gradichie (abbiamo appositamente prescelto l'ortografia italiana perchè questi nomi possano essere pronunciati dal lettore italiano, avvertiamo che "schie" deve essere pronunciato non con pronuncia toscana ma colla veneta p. e. in "schieto") derivanti tutte dalla radice Grad che significa Castro, Castello, luogo murato. Le rovine sono o di muraglia a cemento, o semplicemente di macerie.

Il popolo crede che fossero costruzioni greche, tradizione infondata come lo dimostrò il dottissimo Dr. Kandler, poichè il debole governo dell'Impero orientale non lasciò, quasi vestigia di se meno ancora tale che avessero un impronta nazionale greca.

I nostri eruditi propendevano a ritenere i Castellieri come opera romana ; l'Istria possiede tanti monumenti della grandezza romana, tanti testimoni visibili dell'importanza che il governo romano attribuiva al possesso di questa provincia, che in difetto d'ogni indizio storico sull'origine de' Castellieri l'idea che fossero un sistema di castrì romani veniva quasi da se ; si osservò che da un castelliere si vede l'altro, e ciò, fece supporre che questi castrì potessero corrispondere mediante un telegrafo ottico.

Questa ipotesi non appagava per altro tutti i pensatori i quali opponevano che i Romani non usavano disperdere le loro forze, lasciavano libero movimento ai popoli conquistati, pronti per altro a severamente punirli in caso di ribellione. Le fortificazioni devono stare in proporzione col presidio e viceversa ; se si considerava il numero e l'ampiezza de' castellieri si dovrebbe giudicare che migliaia di militi fossero sacrificati a presidiare quei fortalizi in luoghi deserti

ed inospitali, mancando quasi in tutto l'interno dell'Istria tracce di Città oggidì esistenti ai tempi romani. Ciò non corrisponderebbe alla saggia politica e strategia di quel popolo conquistatore. Qualcuno era disposto di ritenere i castellieri opere de popoli aborigini per diffendere la loro indipendenza contro i Romani. Quest'opinione merita d'esser presa in considerazione constando qual' accanita difesa gli Istriani opponessero alle armi romane. Ma siccome ne'Castellieri fin ora non furono trovate iscrizioni, armi o altri documenti che attestassero la loro origine romana, celtica, tracica, liburnica, flanatica o giapidica etc., restava sempre il dubbio, e si era pronti di accogliere un'altra ipotesi che presentasse qualche probabilità.

Recentemente la scienza Geologica ed Antropologica ha in base di ripetute scoperte constatato, che in epoca remotissima e preistorica vivesse in Europa contemporaneo all'Orso delle spelonche, all'Elefante primigeni o al Rinoceronte ed alla Iena una razza d'uomini diversa dalla nostra. In Svizzera e nell'alta Italia furono trovate delle palafitte nel fondo di laghi con residui di uomini e di animali, dallo studio de quali e degli ordigni ivi scoperti, di cui si servivano quegli uomini, risultò, che in tempi ove le belve feroci contrastavano loro seriamente l'esistenza trovarono salvezza costruendo intieri vilaggi sopra palafitte ne laghi. Ulteriori scoperte, principalmente di armi ed istrumenti di pietra, osso o bronzo, contribuirono a formare un razionato sistema del progresso e sviluppo dell'uomo preistorico e la divisione in epoche, così si parla dell'età della pietra cui corrisponde quella de trogloditi, a questa succedette l'età del bronzo di cui già si trovano vestigia presso le palafitte.

Un segno evidente che tutte le anteriori ipotesi risguardanti i castellieri istriani non erano soddisfacenti si è quello che molti ora suppongono doversi riportare l'origine de castellieri ad una delle accessinate età preistoriche. Qualcuno sarà stato il primo ad esternare un tale pensiero, molti lo possono aver avuto contemporaneamente ed in generale si ragiona così: se nel Belgio e nella Francia ed in altri paesi dell'Europa si trovarono scheletri d'uomini viventi in epoca molto remota, se nella Svizzera ed alta Italia si scopersero vestigia di palafitte e di intieri vilaggi di uomini che vivevano sopra laghi, vi potevano essere contemporaneamente degli uomini anche in Istria i quali, non esistendovi laghi, trovassero opportuno di costruirsi abitazioni fortificate sulle cime de morti. Persone versate in geologia ed antropologia scopersero ne castellieri istriani rottami di pignate di un cotto di forma molto primitiva ed asservarono sulla superficie dei rispettivi recinti un terriccio nero che sembrerebbe essersi formato da ceneri ed escrementi, indizii di abitato.

Così, stavano le cose non ha guari, quando ad un tratto l'interessante questione entrò in una nuova fase: un celebre viaggiatore di paesi lontani e selvaggi che si fece un gran nome pubblicando la descrizione de suoi viaggi, visitando nell'autunno scorso l'Istria trovò i nostri castellieri degni della sua attenzione e ne examinò parecchi; egli si propose di ritornarvi e di continuare i suoi studi sui

castellieri; come sentiamo il nostro erudito Signor Tomaso Luciani intende accompagnare l'illustre viaggiatore nell'accennata escursione scientifica, e tali celebrità ci sono pegno che la questione verrà studiata a fondamento tanto dal lato preistorico che dallo storico.

Informati noi d'un tanto, volemmo ispezionare uno de castellieri visitati dal sulodato viaggiatore, e vi ci recammo col fermo proposito di lasciare a casa ogni preoccupazioni.

Racconteremo in breve l'impressione che ci fece: In cima d'un monte con superficie or di strati calcari or di terreno composto di detrito marnoso ed arenario si trova un vasto piazzale circondata da alta e larga macerie di pietre calcari di cui alcune sorpassano il volume di 2 piedi cubi. Dal lato ove l'accesso è ripido e difficile vi è una sola cinta, da tutti gli altri lati la cinta è doppia, sicchè il recinto interno rappresenta un elissi e l'esterna una mezzaluna.

Non avevamo tempo di esaminare il terriccio, ne di cercare rottami di cotto, casualmente non ci si presentò nessuno così pure non potemmo scorgere traccia di cemento fra le pietre; noi non potevamo fare altra congettura, che quel luogo sia stato destinato dalla popolazione del vicino contado per raccogliervi il loro bestiame ed averi mobili onde potersi difendere da un aggressione nemica.

Quanto all'epoca in cui fu costruita la macerie non ci potevamo fare un'idea nemmeno approssimativa; antica è certamente come lo indica il colore delle pietre ed il musco che le ricopre, conosciamo per altro macerie che non hanno un secolo d'esistenza le quali presentano un aspetto poco diverso.

Considerato che i più celebri geologi sono concordi nell'attribuire alle palafitte per lo meno l'età di 10,000 anni, noi dobbiamo ingenuamente confessare che quelle macerie non ci fecero l'impressione d'un'età tanto veneranda, e potiamo addurre anche qualche ragione in sostegno della nostra opinione: il geologo Stache che più d'ogni altro studiò la nostra stratificazione ha dimostrato essere la marna coll'arenaria la più giovane formazione dell'Istria, esserne sparita moltissima per degradazione, ed essere in molti siti comparsa alla superficie la pietra calcare un tempo coperta da strati arenario-marnosi. Questa teoria ha persuaso tutti quelli che osservarono il nostro suolo.

Il piazzale del castelliere in discorso presenta pietra calcare sporgente, la macerie è fatta di questa pietra e si doveva trovare nel vicinato; il piazzale non era dunque coperto di strati arenario-marnosi quando fu costruito il castelliere, per la qual cosa seguendo la teoria Stache, non potiamo ammettere un'età enorme, e ciò tanto meno, che il detrito arenario-marnoso si trova sul medesimo monte a poca distanza del castelliere. Osia con altre parole: un castelliere costruito 10,000 anni fa in quel punto dovrebbe dietro le teorie geologiche dell'Istria essere composto di pietra arenario-marnosa. Dobbiamo ancora osservare di non aver trovato traccia alcuna di abitati ne di pozzi o stagni d'acqua, locchè indicherebbe che il recinto in discorso non poteva serviva che in momentanei bisogni di guerra. E ciò è quel poco che potiamo congetturare sul castelliere da noi visitato senza poter fare deduzioni riguardo ad altri che possono essere bene diversi.

Essendo nostro scopo di eccitare persone meglio di noi informate a pubblicare le loro vedute riguardo ai castellieri onde prepararci alle notizie che attendiamo dalle insigni persone che si proposero di studiarli *ex professo*, ci permettiamo di accennare alle varie epoche preistoriche e storiche che dovranno essere poste a confronto coi medesimi ed ai caratteri particolari di ciascun epoca.

I. Epoca preistorica; intendiamo quella s'incronica coll'epoca delle palafitte. I trogloditi si rifuggiarano in tempo di aggressione nemica nelle loro caverne, almeno ci pare verosimile; per stabilirla occorrerebbe valutare le condizioni geologiche attuali e le presumibili in quei tempi, si dovrebbero trovare teschi ed ossa umane simili a quelli della palafitte o almeno sufficiente numero di attrezzi ed armi simili a quelle scoperte presso le sudette palafitte.

I rottami di cotto sono un oggetto molto delicato in Istria ove p. e. a Castel Rachele ne vengono fabbricati anche oggidì di forma veramente preistorica; il confronto con cotti delle palafitte ci pare indispensabile. Un altro punto delicato è il terriccio; terre di color nero vi sono anche altrove; l'analisi chimica ed il confronto de risultati ottenuti dovrebbero dare molto schiarimento.

II. Epoca degli aborigeni siano stati Celti, Traci, Flanati, Liburni o Giapidi, di caratteri distintivi di quest'epoca dovrebbero essere scheletri avvicinantisi alle forme attuali, armi ed istrumenti più perfetti di quelli che indicano l'epoca delle palafitti.

Guerra più feroce della conquista romana non contengono gli annali dell'Istria, e gli Istriani devono aver fatte grandi opere di difesa per diffendere la loro indipendenza dai conquistatori romani.

III. Epoca romana alle quale va congiunta anche quella dell'Impero orientale. Siamo certi che il verdetto de Signori che examineranno i castellieri non ci lascierà nessun dubbio, se siano di origine romana o meno.

IV. Epoca della 1^{ma} immigrazione de Slavi. Non bisognerebbe scartare nemmeno questa, si tratta di 12 secoli. Tanto gli indigeni quanto gli immigrati potevano aver motivi di fare barricate per la propria difesa e del loro bestiame. Ci dispiace di non conoscere tanto lingua slava per poter giudicare se le denominazioni che essi danno ai castellieri indichino castri, etc. o soltanto rovine de medesimi; nel 2^{do} caso sembrerebbe che li abbiano già trovati in rovina e si dovrebbe ricorrere ad un epoca anteriore.

V. L'epoca delle conquiste de Franchi non sembra aver causato grande spostamento di popolazione in Istria.

VI. Epoca delle scorrerie de'Turchi. In Carniola le invasioni turche diedero origine a molti castellieri che ivi si chiamano "Tabor," parola d'origine asiatica che in Slavo ed Ungherese significa accampamento ed in Turco presso poco lo stesso.

Ecco in succinto quanto il Barone Valvasor nella sua Cronica della Carniola pubblicata nell'anno 1689 (Vedi L. II., p. 115—281; L. IV., p. 539, 540; e L. XV., p. 373) scrive sopra tale argomento. "Vi sono delle rovine in Carniola che non sono di castelli baronali ma di Tabor ossia accampamenti fortificati costruiti all'epoca delle

scorrerie turches. Nel 1471 incominciarono queste barbare invasioni e si principiò fare i Tabor ne quali il popolo del contado raccoglieva e diffendeva le cose mobili di valore. Quando poi in seguito al cordone di fortezze e presidi militari al confine della Turchia fu posta termine alle invasioni Turches, quei Tabor che non racchiudevano una Chiesa furono totalmente negletti e passarono allo stato di rovine.

Descrive poi i seguenti Tabor che essendo caverne naturali sono vere meraviglie, Pod Jamo-Tabor e Sciler-Tabor nella Pinca superiore, finalmente il Tabor di Cernical nella giurisdizione di S. Servolo. Ecco qui un esempio come si può prendere facilmente un abbaglio sull'antichità di certe rovine.

L'Istria confina colla Carniola, indubitabilmente si passò di concerto per difendersi contro i Turchi, l'analogia è molto seducente, pure siamo convinti che i nostri castellieri non siano di quell'epoca per la ragione che il nome Tabor sarebbe stato adottato anche qui almeno dai Slavi, e perchè essendo per tutta l'Istria una quantità di luoghi murati che racchiudono Chiese e Case erano queste, piccole borgate e ville murate sufficienti per servire di rifugio agli abitanti del rispettivo contado col loro bestiame ed oggetti mobili di valore, senza aver bisogno di Tabor o accampamenti come nella Carniola. Supponiamo che in quell'epoca molte mura saranno state ristaurate; altre erette da nuovo, ma sempre attorno gli abitati preesistenti.

Oltre quest'epoca la Storia si può dire completa, la guerra degli Uscocchi travagliò l'Istria ma ogni avvenimento, ogni piccolo fatto d'armi e minutamente descritto, di Castellieri non si faccono.

Concludiamo colla seguente considerazione: Vi sono paesi ove fu guereggiato molto più che in Istria e vi sono molto meno vestigie di accampamenti per la ragione che fosse, argini e ridotti di terra, vengono coll'andare del tempo appianati dalle alluvioni e dall'agricoltore.

In Istria a queste costruzioni si prestava la pietra ovunque reperibile ne vi era mai bisogno di cavare le pietre dalle rovine di castellieri. Ogni aggressione nemica poteva render necessaria la costruzione di qualche nuovo accampamento, necessità di trasportare il materiale non vi era mai, così potevasi sorgere in diverse epoche nuovi castellieri. *Qui bene distinguit, bene docet*, l'interessante questione de molti castellieri potrà trovare forse più facile soluzione colla divisione de medesimi e col riportare l'origine di alcuni ad una, di altri ad altra epoca.

(Signed) S.

The following is my reply to the sensible strictures of S. :—

To the Editor of LA PROVINCIA CAPODISTRIA.

SIR,—I have read with great pleasure the able and instructive communication concerning the Castellieri of Istria addressed to your journal. The Antiquarian race is proverbially credulous, and the adversary who compels us to take stock of our facts, to show the

basis upon which our belief rests, and to annihilate any objections which may be brought against our conclusions, does the best service to the cause. Without further preamble, I propose at once to marshal the reasons which induce me to determine that the Castellieri of Istria are pre-historic or, if you prefer it, "proto-historic."

I. The moral certainty that this beautiful peninsula would be inhabited by archaic races. Washed by seas that abound in the finest fish; covered with woods and forests, which would harbour hosts of wild animals; situated in the heart of the temperate region, and owning every variety of climate, from the delicious and quasi-tropical temperature of the western coast to the almost boreal atmosphere of the mountain range bounding it to the east; with valleys of the richest soil fit for the growth of cereals, and with uplands where cattle, goats, and sheep can graze throughout the year—this "Eastern Piedmont" must have been a paradise for pre-historic man. Who can believe that cold Switzerland would swarm with pile-villages; barren Scotland and comfortless Ireland with "cranogues," whilst Istria remained a desert? But M. de S. has distinctly no right to assume an antiquity of 10,000 years, nor are we required to dispose of his geological objection. Even those who believe in the settlement of the Colchians or Argonauts, a legend of which my distinguished friend Cav. Tomaso Luciani (Istria, No. 67, 68, Oct. 30, 1847) observes, "Io non ho com'altri il coraggio nè di credere ciecamente nè di assolutamente negare," the furthestmost date would be 3,254 years (B.C. 1380 + An. Dom. 1874). But, further, the Romans did not penetrate into Illyria before B.C. 329, and thus "pre-historic" would here mean, not 10,000, but 2,103 years. The popular belief which attributes the ruins to the Greeks, who would have been, not of the Lower Empire, but Thraco-Kelts, is not to be dismissed with contempt: it distinctly separates the Grad from the Turkish "Tabor" (طابور), a word signifying, a crowd, a battalion, a column. As regards the Colchian settlement, for which we have the authority of Strabo and other geographers, we must bear in mind the direct assertion of Herodotus that these people sprang from the Egyptians, an Æthiopic or Negro race who practised circumcision. The universal consensus of history declares the people of Illyria to have been Kelts. Many reasons justify the student, methinks, in assuming that the pre-historic races of Istria were Kelts, and in assigning to certain ruins of Istria an age exceeding twenty-one centuries. *Par parenthèse*, I must here congratulate myself upon the fact of Novum Illium being now restored to its place in the annals of the past, despite the nebulous myth-theory with which modern study has oppressed it, before the use of that *ultima ratio*, the spade, had amassed exact knowledge entitling us to venture upon abolishing ancient Troy.

II. The position and form of the Castellieri. That admirable student, the late Dr. Kandler, decided that many of them were Roman, and doubtless he was not wrong. As Cav. Luciani remarks, Istria is a palimpsest, upon which many a successive hand has left its traces.

The Castellieri near the great military roads would naturally be converted by the civilized colonists into guard-houses : of these many in Syria are still standing. But it is strange that Dr. Kandler, who by studying the works of Vegetius,* was enabled to lay down with a firm hand the outlines of Aquileja did not perceive the radical difference between a Roman camp and a pre-historic settlement. The former were always parallelograms, squares or oblongs, built to accommodate a given number of soldiers ; laid out according to rule, and caring less for strength of position than for free access to wood and water. The latter are almost invariably circular or oval, the form still affected by the savage African. They crowned the cones of hills or the heads of buttresses, and they were disposed, not regularly, but according to the exigencies of ground. In no case they were built with mortar, as M. de S. thinks, an invariable characteristic of Roman fortifications. They are too far numerous for garrisons : the territory of Albona, for instance, contains nearly twenty. They were not intended for temporary strongholds in time of danger, where each could resort, carrying water, fuel, and provisions : the black soil shows that they were permanently inhabited. None of them are provided with wells or cisterns, and do we not see the women of many an inland Istrian town condemned, like their pre-historic sisters, to toil up and down the steep road with heavy water-pots upon their heads ?

The surface of the Cunzi enceinte is a brown humus, the decay of vegetation covering the "*terricio nero*." I quite agree with our adversary that this "black soil" of the Castellieri should be submitted to analysis. But I may venture to say, in opposition to M. de S., that it exists nowhere in the Peninsula except where man has dwelt, and that it will be found to consist of ashes and other organic matter. Again, even in the Scoto-Scandinavian islands of modern Great Britain we have pottery as rude as the cotti which profusely strew the *terre pleines* of the Castellieri : the practised eye, however, has no difficulty in distinguishing the old from the new. Our critic complains of not finding "cotti" at Cunzi ; he might have picked up hundreds in the rubble of the walls.

III. But what completely upsets the objections of M. de S. is the presence in our Castellieri of prehistoric weapons, stone axes and arrow-heads. Assuredly these belong to the aborigines, not to the Romans. Whatever doubt there may be about the pottery, none can attach to the implements. The argument that human skulls and bones are absent is simply negative : the reply to it is that they have not been sought, and consequently they have not been found. How many excavations have been made in the Castellieri of Istria, or in the caverns which may be expected to yield such spoils ? Absolutely none ! Even till the last few years the peasantry have ignored the value of many "finds," and they are not singular in

* "Castra autem, præsertim hoste vicino, tuto semper facienda sunt loco, ubi e lignorum et pabuli et aquæ suppetat copia" (lib i. cap. xviii.).

the world. As time rolls on we shall doubtless dig up a greater number of stone instruments, and we shall come upon human remains.

And now, leaving generalisms, let us meet M. de S. upon an especial *champ de bataille*, the Castelliere of Cunzi, or "Kunzi." For reasons which your readers must remember, he decides that it is not a fort, but a fold. For reasons which I proceed to state, I opine it to be, not a fold, but a fort. Shepherds would certainly not take the trouble to erect anything so laborious. The several lines of ramp or road leading up to it are grassy breadths, which still show them to have been the work of art. The summit of the hill has been planed away with immense labour, and stones of unusual size have been placed to do the work of a rampart. The double enceinte is unintelligible in a sheep-fold ; perfectly reasonable in a village, where the cattle would require quarters distinct from the villagers. There is not a trace of houses, because the latter were probably built of wood and thatch, easily confounded with the ashes which strew the ground. The stones may have been *in situ* two, or even three, thousand years. The want of water I have shown to be no objection : such buildings were made before the time of protracted sieges. These remarks, I may observe, are merely a sketch of the subject, which might be extended to a greater length than your limits, or the patience of your readers, would endure. Permit me, in conclusion, to offer my thanks to M. de S., and to assure him that, whilst looking forward to his future communications, I pledge myself to meet him whenever he thinks proper again to take the field.

Your most obedient servant,

RICHARD F. BURTON.

Trieste, February 25, 1874.

Reviews, &c.

ANTROPOLOGIA DEL LAZIO, MEMORIA DEL GIUSTINIANO NICOLUCCI.

IN our previous number, "Anthropologia," No. II., pp. 254—263, we gave an analysis of the three first chapters of this learned work. The fourth and last chapter we then passed over, but with the intention of returning to it. This chapter, entitled "The Latins of the Present Day," is of such importance, and has so weighty a bearing upon our science itself, that it demands a further and more lengthened notice. The author begins by saying,

"The examination of the crania hath demonstrated that the Latins of to-day, in the form and size of this part of the skeleton, are not at all dissimilar from the ancient, and that the self-same cranial type which was proper to the old inhabitants of Latium is still unchanged in the present descendants of that most noble race. Whatever occurs in the other provinces of Italy, or in foreign countries, it has happened in the Latin lands that we cannot but recognize in the traits of the visage, and in the general forms of the body of the native inhabitants of the country, that same resemblance and that same conformation of the person which present themselves in the statues, busts, and hermes of our antique Latins, which we admire as they are collected in the public museums and in the private collections of houses and princely villas."

This observation of the great similarity between the ancient Roman statues and the type of the present inhabitants was already made by one of the greatest of modern ethnologists, the celebrated and acute Dr. W. F. Edwards, the founder of the Société Ethnologique of Paris.

The passage above quoted sounds like the discoveries made by the great Anthropologist of America, Dr. S. G. Morton, in his "*Crania Ægyptiaca*," in which he established firmly the unchangeableness of human races. As he expressed it, "The physical or organic characters which distinguish the several races of men are as old as the oldest records of our species." He had previously pointed out pictures in the Egyptian tombs belonging to the early dynasties, nearly two thousand years before the Christian era, representing African Negroes, such as we actually behold at the present day. His words even go beyond this :

"Negroes are abundantly represented on the pictorial delineations of the Egyptian monuments of every epoch. Complexion, features, and expressions, these and every other attribute of the race, are depicted precisely as we are accustomed to see them in our daily walks; indeed, were we to judge by the drawings alone, we might suppose them to have been executed but yesterday; and yet some of these vivid delineations are nearly three thousand five hundred years old! And, moreover, as if to enforce the distinction of race, by direct contrast, they are placed side by side with people of the purest Caucasian features." *

As to the ancient Egyptians themselves, after a long and very elaborate craniological investigation, Dr. Morton decided the question of their true race, "that they certainly were not Negroes, as ancient authorities had maintained, but were a branch of the Caucasian race." This was before it was discovered that they were closely allied in race to

* *Crania Ægyptiaca*, p. 60.

the lowest, most abject, and unredeemable savages upon the face of the earth, which discovery is of recent date. Whether any have been deluded by it, it is difficult to tell. However this may be, Dr. Morton decided that the present Fellahs, or peasant population of Egypt, have in their appearance and character the warrant that they are "the lineal and least mixed descendants of the ancient Egyptians." The same doctrine comes out of the study of the skulls of the ancient Britons. The crania of the rural inhabitants in many districts of England are upon the same model, and well represent the old skulls.

The distinguished Professor Maggiorani, himself a Roman, in his excellent craniological treatise upon the ancient Romans and the Etruscans, discourses upon the persistency of the physical characters of the ancient Romans in the present inhabitants of his country.

"The form of the Roman head, visible in the ancient portraits, is still found at this day among the inhabitants of the Eternal City, provided that we seek examples, not so much in the middle class, and much less among the nobles (in whom, through the course of time, mixture will more easily occur with foreign nations), but in the lower people, and especially in some quarters of Rome, as in that of Transtevere, or Monti, of Popolo, and of Regola. The carters, the curriers, the blacksmiths, the carpenters, and other such artificers, who inhabit those parts of the city, often present a faithful remembrance to the ancient Roman type."*

It is of great moment to us to receive the opinions of Dr. Nicolucci upon the subject of the ancient and leading race of Italy, that of Latium, or as we designate it, Roman, which spread its conquests over the ancient world, and left everywhere indelible traces behind; even the most distant region of Britain was greatly subdued by it, and we of the present day can still detect its influence and effects. The author is not a young or an inexperienced Anthropologist, but has studied the science thoroughly. His general work upon Human Races ("Razze Umane," 2 vols.), dates from 1857 and 1858, in which he investigated them from the most extended field of view, supporting his conclusions, in most cases, upon their craniology. Subsequently to that publication, he has inquired into the works and the remains of man in the pre-historic period, wherever they have been found in his native country; and has gone deeply into all the problems raised by the recent expansion of craniology, whether relating to the Italian or other races. So that his views upon these subjects must be very mature. Hence we are the better able to estimate their value, when he tells us, as the result of his long-continued and deliberate study, that the Latin race is distinguishable by its special characters, which were plainly delineated in their skulls, as well as in works of art, in the most ancient times, and are now visible in the crania and in the people of Latium at the present day; in other words, that the Latin race is unchanged from the beginning to the present time.

This is so important a testimony that we are compelled to admit that the fact to which it witnesses is now demonstrated. It has

* Maggiorani Saggio di Studi craniologici sull' anticosirpe Romana e sulla Etrusca.

been hinted by acute observers before, but it is now proved by Dr. Nicolucci. Perhaps this close similarity of form and character could not be more significant by its attachment to any race of people than the Roman, who have endured from the remotest periods, even pre-historic, to the present. And they preserved these characters not only in Latium, but in other countries to which they resorted, either for war or commerce, as is clear from their skulls and their monuments found in Britain. Hence we have the testimony of the great Roman people to the abiding inheritance of the same forms throughout all ages. This becomes a doctrine of Anthropology of most impressive value, not to be gainsaid by any speculations whatever. It is an unquestionable fact. Dr. Nicolucci controverts substantially and completely the opinions of some French and English writers, who have assumed that the Roman type is by long course of time depreciated, and that the Romans of to-day are a bastard race, debased, degraded, no longer like the ancient Romans, but that a new baptism of races has changed their physical and moral characters, and that Teuton and other blood have modified their cranial conformation. The author shows that the barbaric blood never deteriorated that of Latium, and consequently that his own positions are impregnable.

In this place occurs a fine delineation of the Roman type itself:—

“The ancient Roman, such as he is represented in the statues, hermes, busts, bassi relievi, paintings, and descriptions we possess scattered about here and there, was not of exceeding stature, or exceeded by little the mean; strong and vigorous in his limbs, with a predominance of his muscular system. His head, sometimes depressed at the vertex, was large, and was developed in all its contours; the forehead broad, but not much elevated, the eyes large and widely opened, nose chiselled, not rarely aquiline, and the nostrils curved, cheeks rather prominent, the mouth of moderate size, the face somewhat long, the outline of the visage slightly oval. The colour of the skin not milk white, but turning somewhat to a brunette tint, with more or less carnation apparent in the cheeks. The hair not rarely black, but more frequently chesnut, or more or less brown, and so far fair; beard thick, exuberant, and hairy system in general much developed; the thick and arched eyebrows run on towards the cheeks, eyelashes long, delicate, and silky; eyes black, or at least very dark, most rarely blue. Neck not long, but thick; the thorax wide and spacious, and the limbs all concur in beautiful harmony to form a human type which, if not that of the celestial beauty of the Belvedere Apollo or the other ideal types of Greece, is, nevertheless, that which represents power united to grace, and to the expression of noble and high sentiments.”

After this exquisite picture of the Roman man, Dr. Nicolucci proceeds to a graphic sketch of the women:—

“This type of the Latin man adorns itself when investing the female form, and what there was in it austere, serious, authoritative, is converted in the woman into a delicate expression of comeliness, since in the Roman woman her whole person puts on the grace of an uncommon beauty. The agility of her body, her abundant and diffuse hair, her large black eyes, lively and eloquent, her mouth embellished with vermilion-turned lips, the rosy incarnate cheeks, her finely-chiselled nose, her countenance gracefully rounded, her wide and full bosom, her well-turned arms, her long and rounded hands, compose a harmonious and elegant whole, which renders her beautiful and pleasing to a degree above others.”

In this delineation of the features of the ancient Romans of either sex, the author makes frequent references to the Latin poets—to

Plautus, to Catullus, to Virgil, and to Ovid, whose lines lend support to every feature he has depicted, often in more glowing terms.

"Not dissimilar are the features of those who represent the present descendants of the ancient Latins. In Rome we ought not to seek these types in the elevated classes of society, or in the quarters most frequented by strangers, but in those principally occupied by the vulgar, as the quarters of Borgo, Transtevere, Monti, Popolo, Regola, and in the other countries of Latium, among the people of the villages, who have always remained free from foreign admixture. Whosoever observes with attention these sempervirent elements of the ancient race of Latium, there suggests itself quickly to his mind the appearance of the old Latin population, that same complexion of the person, that same physiognomy of the countenance, that same expression of the features which he had contemplated in the plastic monuments, and in the surviving pictures of antiquity he will find them imprinted and speaking in those who live at this day upon the Latin soil. I will say further, that dignity and firmness of mind, that sentiment of equity and justice, which render the ancient Romans celebrated, will be continually seen permanently in the actual populations of Latium. Living portraits of the Scipios, of the Gracchi, of Pompeys, are not infrequent among the people of Rome, and there is no region of Latium where every day living persons do not call to mind some illustrious name of antiquity. Nor are the present Latin women less than these imaged in the monuments; or described by the poets, and all, like the women of Castelli Romani, and the lands of the Ernici, of the Volsci, and the Equi, have even at this present day the praise of beauty before all other Italian women."

"Therefore, as much does the form of the cranium as the general physical characters, and the history itself of Latium, speak to us with lofty eloquence of the non-interrupted continuity of the Latin race, from the most remote ages to the present day. What if it has pleased some little benevolent writers to consider the race of those who made Rome the queen of the world extinct? the arguments we have here adduced to combat these erroneous doctrines seem so convincing as to repel whatsoever objection. Not slight encouragement to Italy, who, although fallen so low, may at this day, awakened from her long lethargy, mention with pride that in the veins of her children there still flows the virgin blood of their great progenitors, and foretell that past glories shall not be without stimulus to the future fates of her new generations."

After these patriotic passages, which do so much credit to this distinguished Italian Anthropologist, he proceeds to the discussion of some interesting questions connected with the common and misused phrase, "*Latin races*."

These deserve more consideration than we shall be able to bestow upon them. Italy, France, Spain, and Portugal, do not form only one family of nations, and do not represent the diverse members of the great Latin race. No one has ever said upon what elements are placed the consanguinity claimed for these nations, so heterogeneous from the Latin race. The Latins were always jealous to preserve their proper name, and with it the proper title, which gave them rights that the other people of Italy did not possess. Rome herself, which was the parent city of Latium, reserved to herself great prerogatives, vaunted herself to be founded by those Latins who had had Alba for the capital of their kingdom. With the extension of the power of Rome, the Latin name sounded synonymously to that of Roman, and, soon afterwards extending itself to all Italy, became common to all the peoples who inhabited the peninsula. The noble language which was spoken from the Alps to Sicily was named but Latin, and Latin similarly the sciences and the literature, which increased the splendour of her power, the Empress of the World.

Rome spread her colonies, either of Latins or of other races, over a large part of the world, extended to them the benefits of civility, gave laws to the world, and imposed her language, which was the only common tongue of the conquered. After the death of Theodosius, the Roman empire was divided into east and west; to all the peoples who dwelt in the latter the name of Latins was given to distinguish them from those of the east, who were called Greeks or Byzantines. Thus, it is easily comprehended the community of name, of language, and of government, did not carry with it that of origins; and although the Gauls, the Iberians, and the Italians may have spoken the same idiom, might have been called indistinguishably Latins, they always were, as at the present day, three different peoples, by usages, customs, habits, dispositions, desires, affections, inclinations, and all the other particulars which distinguish one people from another. The name of *Latin races* hath not and cannot have any ethnological value, and cannot in any way signify affinity of origin between Italy and the other nations which pretend to the Latin name. In Italy itself the true Latins were only the indigenous inhabitants of Latium, from whence it might be that the name became common to all the other natives of the peninsula.

We are compelled to pass over much in this pregnant and concentrated chapter which would be of great interest to our readers; but in this brief and imperfect analysis we have shown how thoroughly and in what a masterly manner the author has treated his whole subject. So noble a subject demanded from Dr. Nicolucci all the illustration he has been able to bestow upon it. We are constrained to regard this as his most successful memoir.

J. B. D.

PROBLEMS OF LIFE AND MIND. By George Henry Lewes. First Series. The Foundations of a Creed. Vol. I. London. Trübner and Co., Ludgate Hill. 1874.

WE can hardly imagine that any metaphysician will be grateful to Mr. Lewes for the publication of this the first instalment of his great work. It is rather unkind of Mr. Lewes, after showing for thirty years in the various editions of his "History of Philosophy" the utter futility of metaphysical enquiries and methods—for the methods have been almost as numerous as the enquiries—to add to the discomfiture and annoyance of metaphysicians, by applying to their pseudo studies scientific tests and methods. He knows what the result must be; he knows that metaphysics, under such an ordeal, must become of less value than the x of a mathematical problem, which, although an ever vanishing quantity, has a value, while metaphysics cannot be proved to have any.

The reading and re-reading of this volume, for we have read it twice, have given us great pleasure. We were a little astonished upon opening it to find Mr. Lewes treating of metaphysics at all, especially at sundry passages wherein he expressed his intention of showing its

value. Our astonishment soon ceased. Over and over again Mr. Lewes assures us, and his book confirms his assurances in detail, that he is still a devout believer in the "Positive Philosophy;" and he is widely known as a champion of that philosophy. He has not struck his colours. He says, and says truly, "This is not a retreat, but a change of front." The work, with all its brilliancy of style, is a gravely earnest philosophical treatise; or we might suspect Mr. Lewes of some *arrière-pensée* in writing about metaphysics. We might have thought that, knowing him to be a "humourist and wit," the playfulness of Coleridge had bewitched him. "What," said Leigh Hunt to Charles Lamb, "what makes Coleridge talk to me of the Trinity, fall of man, regeneration, and such topics,—to me who am an Unitarian?" "D-don't you k-know?" said Lamb, in reply; "there is a great d-deal of f-fun in Coleridge!"

Mr. Lewes commences his book by stating that:—

"It is towards the transformation of metaphysics by reduction to the method of science that these pages tend. Their object is to show that the method which has hitherto achieved such splendid success in science needs only to be properly interpreted and applied, and by it the inductions and deductions from experience will furnish solutions to every metaphysical problem that can be rationally stated; whereas *no* problem, metaphysical or scientific, which is irrationally stated can receive a rational solution. I propose to show that metaphysical problems have, rationally, no other difficulties than those which beset all problems; and, when scientifically treated they are capable of solutions not less satisfactory and certain than those of physics."

In undertaking to show that certain metaphysical conceptions have a scientific value hitherto undetermined, his first care is to define what he means by metaphysics:—

"In spite of the laxity in its use, the term is so good a term, and has had god-fathers so illustrious, that if possible it ought to be preserved. And it may be preserved, if we separate it from its method, and understand in its primitive sense, *ἡ μεταφυσικα*, that which comes *after* physics and embraces the ultimate generalisation of research. It thus becomes a term for the science of the most general conceptions. This is the Aristotelean view of it, adapted to modern thought. . . . Since we are to rise to metaphysics through science, we must never forsake the method of science; and, further, that, if in conformity with inductive principles, we are never to invoke aid from any higher source than experience, we must perforce discard all inquiries whatever which transcend the ascertained or ascertainable data of experience. Hence the necessity for a new word which will clearly designate this discarded remainder—a word which must characterize the nature of the inquiries rejected. If, then, the *empirical* designates the province we include within the range of science, the province we exclude may fitly be styled the *metempirical*."

The division herein made between the empirical and the metempirical is the division between the knowable and the unknowable; and, accepting Mr. Lewes' definition, it appears to us that all that which can be strictly called metaphysical is metempirical, and as such is therefore unknowable. With the unknowable we have simply nothing to do. Those who speculate upon it waste their time, while those who attempt to make a religion of it foster illusions. It has been incisively observed that "A few day dreams may be occupied by it (the religion of the unknowable)—no doubt a few rhetorical periods pointed by it; but with the most serious thoughts of man, with his most solemn and passionate feelings, above all, with the practical conduct of his life, it

will have no connection whatever. On the mass of mankind, however, such views are not likely to have much influence. A religion that involves no adoration, no sacrifice, no practical duties, is no religion at all!" The effort to get the *why* of the *why*, and the *how* of the *how*, can hardly be that of a true thinker who recognizes the limitations of knowledge. To him all forms of the absolute, theological or metaphysical, are unmeaning. They convey no idea. They cannot be *perceived*, still less *conceived*. Metaphysics have even ceased to be intellectual gymnastics. Beating the air is hardly a manly occupation; albeit the air is a resisting medium. As Comte pointed out in his "Positive Philosophy" and "Positive Polity," metaphysics is the transition stage from the theological to the positive stage, and it is marked with all the weakness of its original. Metaphysics has its intuitions, its *à priori* truths, its universal reason, its innate ideas, and its transcendental method; as theology had its revelation, its God, soul, incarnation, and theory of immortality. The problems of metaphysics are simply theological problems transformed. The persons and things of the first revelation become abstractions and entities in the second revelation; and what were realities in fetichism and polytheism, become unrealities in monotheism and metaphysics. Theology is suspicious of metaphysics as of a rival, but it allies itself with it—sinking all its differences for the nonce—in attacking science. Science it knows to be its natural enemy. With it it wars *à outrance*. Although the ultimate issue is not doubtful, theology will long hold its place in the less advanced minds, which are always the most numerous. "Fools," says Schiller, "have majorities in every nation."

Supra-sensual knowledge is, by the very nature of the case, unattainable. We never can know things in themselves. We can only know them and colligate them as they relate to us. The order of nature *may* be such as we make it, or it may not, but something very different. The external order is composed of certain uniformities of succession and resemblance, which, perceived by the senses, is formulated by the reason. It is a purely subjective creation—like a poem. This subjective creation needs constant correction by the senses. Every extension of knowledge corrects some part of the synthesis, whilst it confirms the rest. Like the social organism, its solidarity and continuity are maintained by waste and repair. Science lives while scientific hypotheses die; and humanity exists although men die.

What method, then, should be applied to metaphysical enquiries? the reader asks. Mr. Lewes answers:—

"Whether the object of research be nature, man, or society in general, or some special group of their phenomena, we always find it presenting three aspects: 1st, the *positive* or known; 2nd, the *speculative* or unknown, though knowable; 3rd, the *unknowable*. The two first are empirical; the third is metempirical. The two first rest either, firstly, on direct sensation and verified inference; or secondly, on intuition and logical deductions from intuition, which are verifiable by direct or indirect reduction to sensation. The third rests on no such bases, and is therefore distinguishable from the two former in kind."

We wish our space permitted of quotations from Mr. Lewes' book illustrating these three aspects of method, and, indeed, from his chapters also on "Scientific Method in Metaphysics," the whole of which are so profoundly interesting.

Mr. Lewes introduces the second part of his "Problems" with fourteen rules for philosophizing, some of which are Newton's and some Comte's. The felicitous way in which these rules are brought home to the reader renders philosophy itself attractive. They are made as clear and distinct as the various notes of the gamut; while such rules have generally been stated so vaguely and variously, that they resemble rather those noises which are designated as singings in the ear. If the student masters these rules with their illustrations, he will find himself fully equipped for the Psychological Principles which follow them.

Under the heading, "Psychological Principles," the following subjects are ably discussed, viz. : Biostatistics, Psychostatics, the Method of Psychology, the Biological Data, Psychodynamics, the Psychological Spectrum, the Sociological Data, and Reasoned Realism. Amongst the most important laws of Biostatistics may be named the following : 1. The Law of Correlated Development. 2. The Law of Adaptation. 3. The Law of Heredity. Corresponding with the Biostatic laws, there are three Psychostatical laws, viz. : 1. The Law of Interest. 2. The Law of Signature. 3. The Law of Experience. These laws are special forms of the primary law, which in Biology is expressed in the formula, "*Every vital phenomenon is the product of two factors—the organ and its medium;*" and in Psychology is expressed in the equivalent formula, "*Every psychical phenomenon is the product of two factors—the subject and the object.*" (These formulæ are Comte's, and are expanded by him in a way which is at once profoundly suggestive and profoundly comprehensive.) Space will not permit of our quoting more than the following passages from "Sociological Data":—

"There is a further ground, still more decisive, against the spiritualist hypothesis, namely, that we have no need of an imaginary agent to explain what can be perfectly explained by a real agent—the social organism. . . . All the facts of consciousness, all the marvels of thought, remain, whatever changes may take place in our theories respecting them."

"If man is a social animal, which is undeniable, the unit in a living whole, just as any one organ is the unit of an organism, obviously his functions will be determined, not only by his individual structure, but also by the structure of the collective organism. . . . Man's individual functions arise in relation to the cosmos; his general functions arise in relation to the social medium: thence moral life emerges. All the animal impulses become blended by human emotions. In the process of evolution, starting from the merely animal appetite of sexuality, we arrive at the purest and most far-reaching tenderness; from the merely animal property of sensibility we arrive at the noblest heights of speculation. The social instincts, which are the analogy of the individual instincts, tend more and more to make sociality dominate animality, and thus subordinate personality to humanity."

Perhaps many readers will deem Problem 1, "The Limitations of Knowledge," the most interesting portion of this very interesting book. Certainly, the subjects are of the oldest, while the method is,

comparatively speaking, of the newest. It is pleasing to note how fruitful in meaning some of the old terms of metaphysics are—divested of their metempirical elements,—when their genesis is scientifically sought for. Then it is seen how much that is put down as *à priori*, innate, intuition, and transcendental, can be explained by the biostatical and psychostatical laws already alluded to. Of intuition, Mr. Lewes says :—

“Its rapidity and certainty, together with our reliance on all spontaneous actions, have led to the notion that intuition is a source of peculiar validity. But intuition is ideal vision, and is no less liable to error than sensible vision. It has also its illusions, and needs the control of verification. In the perception of an object we are unconscious of the many evanescent muscular feelings by which its distance is estimated, and its shape inferred. Analysis, however, discloses that the evanescent processes of which we are unconscious must have taken place; and in the early days of experience the processes took place slowly, consciously. All our intuitions are organised experiences, groups of neural processes which originally were isolated. They are to the mind what automatic actions are to the body. Their mechanism is concealed, because their action is so easy and so rapid.”

The illustrations Mr. Lewes furnishes of this section, as of many others, are aptly chosen, and clearly expressed. Further, Mr. Lewes argues for the reality of abstractions, and points out the paramount danger which besets speculation in dealing with them. “It is that of not eliminating the transcendent element, but of introducing it into the calculation and subsequently personifying the abstraction.” He adds :—“It is only necessary to pass from the symbol to the thing symbolized to re-immersing the abstractions in the concretes out of which they emerged, and we may reduce all that is inferential to pure sensible experience.” Let the reader submit his beliefs, or the beliefs of the *genus homo*, to this process, and he will be both astonished and enlightened at the results. He will find that man’s most cherished hopes, and noblest aspirations have crystallized around purely subjective creations, or generalized forms of sensible experience; and that this sensible experience is, in its origin and essence, strictly fetichistic. Man is born a fetichist, and his fetichist proclivities are striking proofs of what has been termed “survival in culture.”

Let the abstraction Love be re-immersed in the concretes out of which it sprung, and it will be found that these concretes were sexual desire expressing itself in the best way it could by symbols borrowed from physics. There is hardly a phrase a lover can indite to his mistress in which the chief term is not so borrowed. He cannot express the fervour or duration of his love, its irresistible attractions, or its depth, but he must use words familiar to the physicist. Occasionally, the lover may use a word common to chemistry (affinity), a word often to be found in German love-poetry.

Mr. Lewes repeatedly warns his readers against what seems almost a necessity of thought, so generally does it prevail, the treatment of abstractions as concretes. That correspondence between an organism and its medium which we call life has been erected into a vital principle—an entity apart from both organism and medium, and, as it were, independent of them. The belief in a vital principle, plastic

force, *vis inertiae*, formative principle, nerve atmospheres, repulsive atmospheres, nature's horror of a vacuum,* may be things of the past, but the tendency to erect other and newer entities, such as psychic force, polarity, electricity, and ozone, to discharge other and newer functions, is, alas! a besetting weakness of thought, and one which must be guarded against in all philosophizing. Co-ordination, language, memory, psychology, and virtue, are simply abstractions, although too frequently spoken of as faculties,—too frequently they *con-note*, as well as *de-note*.

The chapter on "Ideal Construction in Science" embodies principles familiar indeed to the students of the Positive Philosophy, but which can hardly be repeated too often in the ears of *savans*, so constantly are they forgotten.

"All our science is essentially an ideal construction very far removed from a real transcript of facts. Its most absolute conclusions are formed from abstractions expressing modes of existence which never were, and never could be, real; and are very often at variance with sensible experience. It not only deals with data that are extra-sensible, but with data avowedly fictitious. . . . There is not in nature, there never was, a typical leaf, a primitive vertebra, or an extant series, from which all plants, vertebræ, and animals have successively varied. There never was a plan laid down, according to which the organic world was constructed, after the manner of a plan re-arranged by an architect for the builders' guidance. On the contrary, this plan, and these types, are our after-thoughts, abstractions formed out of the sensible data presented by various plants, vertebræ, and animals; they are ideal constructions from reals, obtained by the mind's grouping together the dominant resemblances, and setting aside all the many diversities. The theologian and metaphysician, by a procedure familiar to them, seize hold of these types, and present them as indices of a plan in creation. But this is the fallacy of supposing a *resultant* to have been the *determinant*."

The "Plan of Creation," developed with so much unction in treatises bearing the finely infelicitous title of "Natural Theology," is a subjective creation of a very low order. It differs enormously from the ideal constructions of science. Science notes, and is bound where possible to explain, all the facts coming within its ken, be they inconvenient facts or convenient facts. It does not suppress inconvenient facts or give glozed interpretations. It renders the best account it can of what appears to be the existing order and disorder. It discards fancies and hopes, and does not cheat itself with sophisms.

Want of space prevents our noticing as it deserves the chapter entitled, "The Search after Causes." Mr. Lewes eliminates from the term *causes* all its metempirical connotations and elements. "There is," he says, "an empirical conception of cause which is the precise equivalent of law." He discards entirely all search after causes, first- and final, as conceptions of "transcendental causality." Here he follows Comte. Whether, when the metempirical elements are extruded from efficient causes, the search after such causes may prove successful, as Mr. Lewes believes, we will not presume to say; but his seeming success would justify the belief.

The sections on "The Two Conceptions of Law" are worthy of careful perusal. So, indeed, is the following chapter on "Intuition

* Nature's horror of a vacuum, as has been proved by experiment, ceases at an elevation of 34 feet from the level of the ground.

and Demonstration," from which extracts have already been given. In the chapter on "Necessary Truths," Mr. Lewes fully expands and illustrates conclusions which he had formed and stated in the prolegomena to the third edition of his "History of Philosophy." The discussion of what truths are *necessary*, and what truths are *contingent*, is one we cannot enter upon now. There is less reason for so doing, as Mr. Herbert Spencer has already done so in his Essay on "The Test of Truth" (published originally as "The Universal Postulate"), to which Mr. J. Stuart Mill has replied effectively in the later editions of his "Logic" and in his "Examination of Sir William Hamilton's Philosophy." The former work owes more to Comte than even Mr. Mill acknowledges, in the carefully-formed opinion of those who are familiar with Comte's writings. There is much that Mr. Lewes says which is incontrovertible, and we prefer his mode of stating and illustrating the subject to that of Mr. Spencer. Mr. Spencer is, notwithstanding his scientific tendencies, a metaphysical thinker, and he permits himself, as it seems to us, to speak too frequently of absolute truths in science and metaphysics, as though such truths were attainable. Having renounced a theological absolute, we are offered a metaphysical absolute—"the revelation of the *savans* we are to substitute for that of the priests."

Some pregnant observations on Kant and his method, in which Mr. Lewes shows why it is that Kant is claimed by adherents of both the empirical and metempirical philosophies.

"It was Kant's purpose to define the limitation of knowledge, and to prove the relativity of all human conceptions. In strict logical result, the supra-sensible was thus excluded from his philosophy no less than from ours. He did exclude it from the speculative, but opened a back entrance for it in the practical. He taught that our faculties are unable to transcend the limits of possible experience, and that we can only cognise in things, *à priori*, what we ourselves have placed there."

The closing chapter in the "Problems" on "The Place of Sentiment in Philosophy" is one from which we are much tempted to quote, but we must content ourselves with the following brief extract:

"The *purpose* of knowledge being to regulate conduct, and the *nature* of knowledge being that of virtual feeling, the importance of sentiment, both as regulative and representative, is indisputable. None but shrivelled souls with narrow vision of the facts of life can entertain the notion that philosophy ought to be restricted within the limits of the logic of signs; it has roots in the logic of feeling, and many of its products which cannot emerge into the air of exact science, nevertheless give the impulse to theories, and regulate conduct."

The highest regulative force of man's life, namely, religion, it needs hardly be said, cannot exist without sentiment. The objection which *savans* have to sentiment, when it is appealed to in matters not properly coming within its province, is well founded; but, when these *savans* seek to put reason in the place of sentiment, they err greatly. "It is for the heart to put the questions; it is for the intellect to resolve them." (Comte.) "The intellect should be the minister of the heart, and never its slave." (Comte.) Feeling is, and must ever be, the motive of man. How to discipline feeling and reason that each may act and re-act upon the other, for the good of both in

the individual, and for the greater good of the collective organism called humanity, is the problem which Positivism undertakes to solve, and, as we think, solves it successfully. Science, and indeed all knowledge, has no *raison d'être*, save in so far as it subserves social well-being. Those who would foster specialism—which is the bane of our time—that they may thereby acquire social distinction, are animated by precisely the same egoistic passion as that of the merchant and trader; and, much as the comparison may offend, it is doubtful whether they serve as useful, social functions. Nothing justifies the pursuit of knowledge but its utility in a broad sense; and the time spent on purely speculative problems, such as do not bear nearly or remotely on human well-being, is criminally wasted. When public opinion—the only spiritual force worthy of the name—becomes more healthy than it is, society will demand of its members, and especially of those who have capital, intellect, and moral power, a full and strict account of what they have done with such noble inheritances—to what social uses they have put these great legacies of the past.

We have endeavoured—very imperfectly, we know—to give the reader some notion of what Mr. Lewes' new book is about; more than a notion our space does not permit us to give him. He will do well to study the work itself. If he does not require the "Foundations of a Creed" in these days, when creeds are falling into disfavour—except that creed which is embodied in money and what money will bring—he will, at least, be thankful to have all his intellectual energies braced and refreshed by such studies as Mr. Lewes offers him.

Constantly, in perusing Mr. Lewes' book, have we been reminded how much he is indebted to Comte's "Positive Philosophy" and "Positive Polity."* These obligations, and especially to the latter and less known (though greater) work, Mr. Lewes gracefully acknowledges more than once.

We cannot conclude this notice, which does the work such scant justice, more fittingly than with the following paragraph:—

"I may here state my conviction that the philosophy, in the construction of which the efforts of all nations converge, is that Positive Philosophy which began with Kepler and Galileo, Descartes and Bacon, and was first reduced to a system by Auguste Comte: the doctrine embracing the world, man, and society on an homogeneous method. The extension and perfection of this doctrine is the work of the future. The following pages are animated by the desire of extending positive procedures to those outlying questions which hitherto have been either ignored or pronounced incapable of incorporation with the positive doctrine."

J. KAINES.

LONGEVITY: THE MEANS OF PROLONGING LIFE AFTER MIDDLE AGE.

By John Gardner, M.D., &c. London: Henry S. King & Co.

THE "purpose" of this work is declared to be not to supersede the physician, but to call attention to the peculiarities of the consti-

* A translation of this work, we are glad to know, is in course of publication by Longmans and Co.

tution which distinguish age from youth and manhood, and to point out those symptoms of deviation from the healthy standard which are usually disregarded, or considered unavoidable incidents of age, and which insensibly glide into fatal diseases if neglected. This object appears to us to be well attained, as the work not only affords some agreeable reading, but, to those who wish to consult it practically, the advice contained in it is conveyed in intelligent terms—a merit not always to be found in medical treatises.

Our province is, however, rather to consider the book in regard to its bearing upon Anthropology. Several topics of much interest to Anthropologists are here discussed; such, more particularly, as the "Longevity of the patriarchs," "Popular errors respecting Longevity," its "Moral and religious aspects," and "The bones of old people." On all these different topics, the expressed opinions of the author appear to be sound and sensible—the result of much observation and reading—and to be free from party prejudice. Longevity is in many respects an important topic in connection with Anthropology, and its study serves to elucidate many matters connected with the study of man, which cannot be so advantageously viewed from any other point, alike physical, intellectual, and moral.

WHAT AM I? A POPULAR INTRODUCTION TO THE STUDY OF PSYCHOLOGY. By Edward William Cox, Sergeant-at-Law. Two vols. 8vo. London: Longmans and Co. 1874.

THE contents of these volumes cannot fail to prove highly interesting to everyone who has paid any attention to mental phenomena. To the general reader who is also a man of cultivation, they must necessarily prove attractive; but the Anthropologist more especially—the student of Anthropology in the highest sense of the term, as including the science of mind and psychology as well as of the mere material structure of man—will peruse them with both pleasure and profit; and the topics here treated on may supply subjects for a long series of papers to any society devoted to this science.

In a work of this kind, it is but to be expected that many of the sentiments will be questioned, and direct dissent will no doubt be uttered against several of the views that are advanced. We do not of course pretend—as it is entirely beyond our province—to attempt to settle these debatable points, if indeed they ever will be settled. All that we can do is to express our opinion that the author has discussed the various subjects introduced with great fairness and candour. The facts with which he has supplied us are of real value, while the conclusions which he has drawn from them seem to be very fairly deduced, and great originality is evinced in many of the views which the author has advanced. As a suggestive work, which on subjects of this kind is perhaps the most valuable style of writing, inasmuch as absolute certainty is so seldom arrived at, the book will be found invaluable to every one who is

desirous of following up fully an enquiry into the nature of his own being; of answering the enquiry propounded on the title-page,—"What am I?"

Mr. Cox commences his work by an investigation into the nature of the material structure of man, describing the different parts of the body, and their various uses (chaps. i.-iii.). The growth of the human germ into an organized frame is traced in chap. iv. He here suggests that :—

"The germ may be a miniature nerve system, so infinitely small as to be beyond the penetration of our most powerful microscopes; that in the conditions favourable to its expansion, it unfolds, and that when unfolded it proceeds to build up about itself the visible and palpable structure we call 'the body,' each separate nerve fibre attracting to itself, from the blood of the mother, the material required for forming the portion of the body to which that nerve fibre belongs, precisely as the attractive force of the crystal centre causes the crystals to assume one shape, and the attractive forces of other centres cause them to take other shapes."—Vol. I., pp. 23, 24.

If his theory be correct, then he contends that "a man is really a nerve system clothed in flesh," and that "the true man is the nerve structure." "How we live," in which he develops his theory of "vital force," occupies chap. v.; and in chap. vi. is attempted a definition of life, while its "beginning" forms the subject of chap. vii. In chap. viii., "On the germ," an ingenious suggestion is thrown out, which is well worthy of consideration and discussion, and which we will give in the author's own words :—

"The suggestion which I venture to throw out for the consideration of Physiologists is that, instead of being constructed of one germ, proceeding from one parent only, and either nursed or vivified by the other parent (as hitherto has been universally assumed), we are really constituted by the union of two germs, a germ being provided by each parent."—Vol. I., pp. 67, 68.

Disease and Death are discussed in chap. ix. The question of animal motion, and the nature and functions of the senses, are considered in subsequent chapters; after which we come to "the mechanism of the mind" (chap. xix.). The various faculties of the soul engage the attention in several of the following chapters; after which enquiries are instituted as to the nature of the soul, its dwelling place, shape, and condition after death.

Several topics of great interest, not only to the Anthropologist and the philosopher, but to the general reader also, are handled in the second volume. Among these is the question of insanity, which we have here viewed from a legal point, and respecting which our author remarks that—

"The really unsettled state of opinion, even among experts, proves conclusively the absence of that positive knowledge which can only be obtained from a vast collection of facts. . . . No two are found to agree in their definition of insanity. They are in direct conflict as to the acts that indicate insanity (p. 107). According to the one set of doctors, no man could be proved to be sane; according to the other, it would be impossible to prove any man to be mad."—Vol. II., p. 108.

The question of somnambulism is fully discussed in subsequent chapters of this volume, including natural and artificial somnam-

bulism. Several chapters are devoted to "psychic force" and its phenomena, and some interesting, and apparently well authenticated and original facts relating to this subject are detailed, and accounts of experiments are given. The very enumeration, however, of these abstruse and difficult and perplexing topics must at once convince our readers of the impossibility, with the limited space which we have at command, of going fully into these matters on the present occasion, much less of doing justice to them, or to our author's mode of treating them. Having said enough to indicate the nature of the work before us, and its mode of handling the various subjects embraced by it alike cautious, earnest, and judicious, we can only conclude by recommending the book to our readers, few, if any, of whom can fail to derive extensive advantage from its perusal, which, to most of them, will be an effort of high gratification as well.

PRINCIPLES OF MENTAL PHYSIOLOGY, WITH THEIR APPLICATION TO THE TRAINING AND DISCIPLINE OF THE MIND, AND THE STUDY OF ITS MORBID CONDITIONS. By William B. Carpenter, M.D., F.R.S., &c., &c. London: Henry S. King and Co. 1874.

WE hail with much satisfaction the appearance of the present work from the pen of Dr. Carpenter, of whose qualification for the important task which he has undertaken, abundant evidence is afforded by his previous publications. The book before us has not only direct bearing on the science of Anthropology, but it is calculated to turn to practical account much of the information which that science serves to supply.

The introductory chapter treats on the general relations between the mind and the body, after which the author proceeds, in chap. ii., to discuss the subject of the nervous system and its functions. The reflex and instinctive actions of insects are here enquired into, as also the nervous system of *vertebrata*. In connection with instinct, he alludes to the transmission of acquired faculties in the case of animals—

"Dogs of other breeds cannot be taught to herd sheep in the manner which comes naturally to the young of the shepherd's dog. And it is well known that young pointers and retrievers, when first taken into the field, will often work as well as if they had been long trained to the requirements of the sportsman."—P. 104.

On the interesting subject of the intelligence of animals as compared with that of man, he remarks that—

"We find no evidence that any of them have a volitional power of *directing* their mental operations at all similar to his. These operations, indeed, seem to be of very much the same character as those which *we* perform in reverie or connected dreams; different trains of thought, commencing as they are suggested, and proceeding according to the laws of association until some other disturb them."—P. 105.

But surely suggestions—at any rate those arising from external objects and sensations, such as mainly direct the course of animal action—arise less frequently during dreaming than during our condition while awake.

The important topics of attention, sensation, perception, and instinct, "ideation and ideo-motor action," the emotions, habit, and the will, are successively discussed, and numerous authenticated facts are cited in support of the several propositions laid down by our author, which add, necessarily, much to the value of the treatise.

On the subject of the memory, the writer remarks that—

"Although it is commonly stated that memory consists in the renewal of past sensations, and of the ideas they have excited, it may be questioned whether impressions are really left on our minds by anything else than ideas; and whether the reproduction of sensations, independently of the presence of the object of them, is not a secondary change, dependent upon the reaction of ideational (cerebral) changes upon the sensorium. It is certain that the most vivid reproduction of sensations is often consequent upon the recurrence of the ideational states with which they were originally associated."—Pp. 431, 432.

He also suggests that—

"There is very strong physiological reason to believe that the 'storing up of ideas' in the memory is the psychological expression of physical changes in the cerebrum, by which ideational states are permanently registered or recorded; so that any 'trace' left by them, although remaining so long outside the 'sphere of consciousness,' as to have *seemed* non-existent, may be revived again in full vividness under special conditions,—just as the invisible impression left upon the sensitive paper of the photographer is developed into a picture by the application of particular re-agents."—P. 436.

The intimacy of the relation between the physical phenomena of memory and the physical condition of the brain is pointed out, instances in support of which, especially in cases of disease which affect the corporeal frame, will probably be familiar to the minds of most of our readers. A remarkable fact connected with memory, referred to by Dr. Carpenter, is that of the memory of persons being impaired while that of places remains vigorous; in support of which he adduces some striking facts. Instances of the loss of the memory of words, and more especially of names, to which he alludes, will also be familiar to most of us. According to Dr. Carpenter, "the recording power of the memory mainly depends upon the degree of attention we give, whether automatically or volitionally, to the idea to be remembered" (p. 470). But surely there are other influences or agents, such as passion, emotion, and circumstances connected with the reception of the particular idea, which, as pointed out by Locke,—and which must be within the experience of most observant persons,—are far more efficient, both to impress ideas on the memory and also to recall them, than any amount of attention can possibly prove.

We rather question whether Dr. Carpenter's definition of "common sense" will do much to settle the question as to the actual nature of this apparently simple faculty, with which everybody fancies that he is familiar, but as to the essential quality of which none can agree. Reid, Sir W. Hamilton, and many others, have tried their hand at the task; but no one seems able to effect what at first sight may appear so easy. And the greater the labour bestowed upon the undertaking, the further off than before does its accomplishment seem to be, thus proving conclusively the difficulty of the effort.

Not much more successful have philosophers and psychologists been in the attempts to define in what imagination consists, although, as in the case of common sense, they find no difficulty at all in telling us what it does. Nor can we think that Dr. Carpenter has here been more successful than his predecessors, when he defines imagination to—

“Consist in the reproduction of the mental ‘idea,’ or representation of an object, formerly perceived, through the senses ; which is more generally understood by the term ‘conception.’ In strict language, every such reproduction of an image, however distinctly traceable to the laws of association, is an act of imagination.”—P. 487.

We must take the liberty, however, of questioning whether the simple *reproduction* in the mind of an image, without any fresh combination being made with regard to it, is not a mere simple act of the memory, not of the imagination ; the effect of which is of a far higher and more complex character.

Dr. Carpenter’s celebrated theory of “unconscious cerebration” occupies a separate chapter in his work. He contends that a large part of our intellectual activity, whether it consist in reasoning processes, or in the exercise of the imagination, is essentially automatic, and that “the cerebrum may act upon impressions transmitted to it, and may elaborate intellectual results, such as we might have attained by the intentional direction of our minds to the subject, *without any consciousness on our own parts.*” And that “the mind may undergo modifications without itself being conscious of the process, until its *results* present themselves to the consciousness, in the new idea, or new combinations of ideas, which the process has involved” (p. 515). The evidence in support of this theory seems to be adduced mainly from the cases of persons being unable to recollect certain facts, but the remembrance of which, without any voluntary, perceptible, intellectual exertion on their part, afterwards comes into their minds, when they are lucidly arranged and clearly exhibited. May not a question, however, possibly here arise, whether, in order to recall ideas into the memory which had been temporarily forgotten, any mental process is actually necessary beyond that which is put forth in the second attempt to recall them ; and, if so, whether this supposed “unconscious cerebration” is at all necessary after all, and does really take place ? This is a passing suggestion, however, which we merely venture to throw out for the consideration of those who are disposed to follow up the subject, and to test the soundness of the theory advanced by the application to it of those facts which the careful observation of everyone may supply. Within the compass of a notice such as the present, it is obviously impossible that we can discuss the very abstruse and comprehensive question here raised, fully and satisfactorily, to which, indeed, a volume might be devoted ; and which, we fear, all the united efforts of the philosophers and psychologists of the day will be unable satisfactorily to determine. We feel, nevertheless, indebted to Dr. Carpenter for the lucid mode in which he has propounded his ingenious theory, and for the candid

as well as able manner in which he has discussed the general subject.

Several other topics of importance and interest, corresponding with those of the foregoing, are treated upon in the work before us, and with the same ability and the same fairness. A mass of valuable facts in support of the theories adduced is also contained in this volume, which adds much to its value as a repertory of scientific matter. Indeed, as regards the detailed citation of facts, were we disposed to be hypercritical, we might express our opinion, that, as is frequently the case with modern works of this character, the treatise is rather overlaid with, than deficient in, facts; a fault, if any, possibly on the right side. But the multiplicity of facts, one after another of precisely the same character, directed to one and the same point, where no deductions of a corresponding amount are obtained from them, appears to us often rather to weaken than to fortify the particular position sought to be strengthened, and to perplex rather than render clear the argument. It is like a multiplication of witnesses in a law trial, beyond what is required to prove the case. To the library of every student of subjects connected with mental physiology, the book before us will form an important addition. To assert that it has added to the reputation of the author, already so fully established, appears preposterous. Suffice it to say, that it is well worthy of that reputation.

QUATREFAGES AND HAMY ON HUMAN CRANIA.*

IN our first number we gave a short analysis of the more salient portions of the first part of this most important work. The second is, if possible, more interesting than the first, and it behoves us now to offer a short *aperçu* of the principal facts collected by the industrious authors. Proceeding, therefore, with the description of the second fossil race of man, that of Cro-magnon, the authors give a minute description of the celebrated *pièces* which have become familiar to our students from the labours of Broca and Pruner-Bay. To this is added particular accounts of the skulls from Langerie-Basse, La Madelaine, Lafaye (Bruniquel), Forges (Bruniquel), and other localities. The remains from Forges have been made tolerably familiar to us by Professor Owen, in the "Transactions of the Royal Society for 1869." The relics from Aurignac, Montrejean, and Aurenzan are more fragmentary, and, with the exception of the first-named, are scarcely known to British Anthropologists. Messrs. Quatrefages and Hamy refer the two crania from Mentone, and those from Cantalupo, to the present division. Many analogies are presented between these skulls and those from the island of Liri, and from Solutré, according to the opinion of the authors. We confess that we are unable to trace the particular points of similarity, as it rather appears to us

* *Crania Ethnica. Les Crânes des races humaines.* By A. de Quatrefages and E. T. Hamy. Deux. Livraison, 4to. Paris, 1874.

that the Solutré skull with its vertical condyles, forwardly directed coronoid processes, long antero-posterior diameter and prominent proboscis, belongs to the same group as that which is familiarly called the "Celtic." Taking all in all, it is not so very unlike the Rodmar-ton long-barrow skulls which were so well described by my lamented friend, Dr. Thurnam. The skull from the alluvia of La Trouchère, in the Scille valley, closely resembles these in many respects, although the open frontal suture gives it the aspect of greater brachycephaly than probably would have been presented by the normal skull. A complete series of *normæ verticales et laterales* are given of these skulls reduced to quarter size; and we are certain that the examination of these groups will convince English Anthropologists of the convenience of regarding a large number of skulls on one plate. The enormous range of variation, which appears to have existed among the Solutré skulls, places some of them at least close to the Cannstadt type. We pass over intentionally the description of the Engis skull, which, from the time of Dr. Schmerling downwards, has been described and re-described by a number of students, and which has been made the stalking-horse of many theories. The lower jaws of Trou la Martina, of Goyet, and of Smeermass, are described in detail, the latter leading the authors to believe that their race of Cro-magnon perhaps extended into Holland. The solitary tooth which was found at Massat, in the Ariège, by M. Fontan, and which has almost dropped out of the controversy since 1862, is again figured. With regard to the number of cusps visible, MM. Quatrefages and Hamy make the following remarks:—

"[In the Smeermass jaw] the first large molar bears five cusps, the second only four. This character, which we have already observed in specimens of our first quaternary race [at La Naulette?], and which we shall again mention in our next chapter, struck the attention of M. Pruner-Bey, who, in leaning too easily to the affirmations of many contemporary anatomists, has sought to establish a contrast between the pentacuspoid molars of the primitive European and those of the existing inhabitants of our country, which have only four tubercles commonly. This assertion, which is found in many classical works, is not correct. M. Hamy has examined in thirty skulls the number of cusps of the large molars. In fifty-one first large molars, twenty-nine were pentacuspoid. In fifty second large molars, forty-four had four tubercles, ten only bore five. The first large molars have then a little more often five cusps than four, and the difference which M. Pruner-Bey has indicated is much less radical than our anatomical text-books."

The same subject was, some years ago, well discussed by the late Dr. F. C. Webb, in his papers on "The Teeth in Man and the Anthropoid Apes." As these were only intended for private circulation, they have been ignored by a large number of zoologists, who have unfortunately never seen them.

Some female skulls from Grenelle are apparently referable to the Cro-magnon type.

The next *livraison* promises to contain a description of the skulls of living human races, and will commence by the Aitas, or negritos of Luçon, the Mincopies of the Andaman Islands, the Japanese negritos, and those from New Guinea, Torres Straits, Tasmania, New

Hebrides, and other localities. We shall expect this with interest. It will be obviously necessary to defer the general criticism until we have the whole work in our hands. The elegance and magnificence with which it is brought out is unsurpassed by any previous work on the subject.

C. C. B.

INSTRUCTIONS SUR LE ANTROPOLOGIE DE L'ALGERIE. Considérations Générales par le Général Faidherbe, Vice-Président de la Société d'Anthropologie. Instructions particulières par le Docteur Paul Topinard, Conservateur des Collections de la Société d'Anthropologie. Paris: 1874.

THIS is an important contribution to the study of Anthropology on a subject but little known in England. The first part, which is by Gen. Faidherbe, treats of the antiquity of the Berber race and of the elements which enter into its composition. The author states that the Berbers were known to the Egyptians of the fourth dynasty, and that they were allied to the ancient Egyptians and to the Semitic peoples; but that now they have a fair element which was received from the north of Europe by the Straits of Gibraltar, the migration being shown by the continuous line of dolmens found from the shores of the Baltic to Tunis. What are now called Berbers are the people who have resulted from the mixture of the indigenous Libyans with the fair race of the north. These constitute 75 per cent. of the population; the remainder consisting of the descendants, in varying proportions, of Phœnicians, Romans, Vandals, Arabs, Israelites, Turks, and Negroes. The second part of the "Instructions" is from the hands of Dr. Paul Topinard, and is worthy of the eminent French Anthropologist. Dr. Topinard draws a parallel between the Berbers and the Arabs of Algeria, much to the advantage of the former, who have been sedentary from time immemorial, whereas the Arabs are usually nomadic and pastoral. The social institutions and manners of these peoples present the greatest contrast, and yet it appears to be certain that they spring from the same primitive stock. Thus our author says that, setting aside all the characters which the Berbers have derived from the fair type, "*les différences physiques entre les deux races se réduisent à des points de détails, et n'était-ce la divergence de leurs langues et de leurs mœurs actuelles on serait bien tenté d'en faire les deux embranchements d'un même tronc ethnique.*" The existence of a Negro element in Algeria is pointed out by Dr. Topinard, and from certain facts he seems inclined to believe that a Negro race, indigenous to the Northern Sahara, has permeated the Berber stock from the most distant epoch, and more recently mixed with the Arabs. May we not have in such a fact the source of the physical differences between the Berbers and the Arabs? Another important point considered by Dr. Topinard is the origin of the fair element among the natives of Algeria. This, for reasons drawn from the spread of megalithic monuments, he agrees with

General Faidherbe in tracing to northern Europe. There is much to be said for this view, which recommends itself strongly to a French Anthropologist, as appears from the conclusion of these "Instructions":—

"Nos trois départements français offrent," says Dr. Topinard, "comme on le voit, un vaste champ d'études à l'anthropologiste. Trop longtemps ils n'ont servi que de champ de manœuvre à nos troupes; au tour de la science à les conquérir! Les questions les plus variées y attendent une solution, et la plus générale saisissante est celle d'une parenté probable entre les deux plus anciennes races de l'Atlas et les deux plus anciennes races de France;—entre les Berbers blonds et les hommes du Nord qui ont disséminé leurs cheveux et leurs yeux clairs sur toute la surface de notre sol,—et entre les Berbers bruns, que Bory de Saint-Vincent désignait du nom d'Atlantes et ce que j'ai appelé, pour ne rien préjuger, notre race brune méridionale."

We trust this is not the last Report we shall have from the talented pen of Dr. Topinard.

THE HEART OF AFRICA. By Dr. George Schweinfurth. London: Sampson Low and Co. Two vols., 2nd ed., 1874.

AFRICA has well earned its reputation as the land of wonders, and, the further into the heart of the continent the traveller penetrates, the more marvellous, anthropologically speaking, are his experiences. The many curious customs and superstitions of the Dinkas, Shillooks, Bongo, and other natives of the White Nile Valley, have been for some time pretty well known to European readers. The Sandey, whose name *Njam-Njam* so expressively describes the cannibal habit which has so impressed their Mohammedan neighbours, have long ceased to be strangers to us. It was reserved, however, for Dr. Schweinfurth to discover the *Monbuttu*, the cannibals *par excellence*, who organize man-hunts for the sake of human flesh, as others undertake the chase of wild animals. These people, who show that cannibalism is not inconsistent with a comparatively high degree of culture, have already been described in a former number of *Anthropologia* (No. I. p. 112). Still further south the traveller met with a tribe, called the Akka, whom he supposes to be "a branch of that series of dwarf races which, exhibiting all the characteristics of an aboriginal stock, extend along the equator entirely across Africa." These pigmies are described as about four feet ten inches in height, with skin of a dull brown tint, and beard and hair (but slightly developed) like "the waste tow from old cordage," of a brown colour. Schweinfurth states that the personal traits of the Akka resemble those of the Bushmen, as described in Fritsch's fine work on South Africa. Thus the upper part of the body is disproportionately long in its superior region, the chest is flat and much contracted, but it widens out below to support the huge hanging belly. From behind, the body seems to form "a curve so regular and defined that it is almost like a letter S." The jaws project in a snout-like manner, and are terminated by gaping but not thick lips, which give an ape-like character to the countenance. The ears are large, as are also, in

the case of the Akka, but not of the Bushmen, the eyes. Schweinfurth further states that the skull of the Akka is wide and almost spherical. This is an unfortunate statement for our author's theory of a relationship between that people and the Bushmen. It is certain that the skull of the latter is dolichocephalic, and it is possible that Dr. Schweinfurth's theory may be saved at the expense of his reputation as a reliable anthropological observer. The long-headed type is so universally prevalent, so far as at present known, among African races, that the strongest evidence would be required to establish the existence of a short-headed type on that continent. M. Broca has indeed shown reason to believe that the Akka are really dolichocephalic,* and Dr. Schweinfurth's statement, therefore, must be received with reserve. The same must be said as to his opinion that many of the Bongo "would require to be classified as hardly removed from the lowest grade of the brachycephaly." It is, of course, not impossible that a short-headed tribe may be found among the negro races, and the phenomenon would be of great anthropological significance, but as yet we see no prospect of it.

JOURNALS.

REVUE D'ANTHROPOLOGIE. Publiée sous la direction de M. Paul Broca. Paris, 1873.

THIS extremely valuable journal has now accomplished nearly three years of its existence, and the four numbers which make up its second volume well sustain the high reputation which it had previously established. The quantity of really valuable scientific matter which the Revue contains is extraordinary. This is due, in great measure, to the fact that its indefatigable editor is assisted by a staff of trained Anthropologists, among whom the first place is occupied by Dr. Paul Topinard, who is hardly less indefatigable than his chief. The leading articles contained in the recent volume of the Revue comprise three by M. Paul Broca, of which one treats of "The Skulls from the Dead-Man's Cavern (*Caverne de l'Homme-Mort*) at Lozère," the second is entitled "Researches on the Direction of the Occipital Cavity," and the third is on "The Celtic Race: Ancient and Modern."

The Sepulchre of Lozère belongs to the polished stone age, and is much like that of Aurignac, showing that the men of that age had preserved the manners of the Troglodytes of the quaternary epoch. In their general conformation, and by their great dolichocephalism and occipital development, the skulls of the *Caverne de l'Homme-Mort* much resemble two of the skulls from Cro-Magnon. This dolichocephalic race has disappeared from the region which it once inhabited, and M. Broca believes that its modern representative is to be found

* See the *Revue d'Anthropologie*, tom. iii. (1874), No. 3.

in the Basques of Spain, the Guanches, and the Berbers. M. Broca admits that this conclusion is based on analogies which are not yet sufficiently demonstrated. But he well says, "If it is true that Northern Africa was formerly connected with Italy and Spain; if thus is explained the arrival in Europe of the great species of tropical animals, and their presence in our most ancient quaternary fauna, is it not possible that at the same epoch a race of men followed the same path, and that, spread over western Europe, it there long preserved, in despite of gradual modifications of climate, characters *en rapport* with its first origin?" M. Broca's second memoir is too technical for us to do more than refer to the principal conclusions which the author there arrives at. He says that the direction of the occipital cavity varies much in different races, and constitutes an important anthropological character. The inclination of that cavity can be best measured by a comparison of what M. Broca calls the angle of Daubenton, the second occipital angle, and the angle *basilaire*. These angles are at their minimum among the European races and their maximum with the Negroes, and their great opening is, in general, a mark of inferiority. The third Memoir of M. Paul Broca—that which treats of the Celtic race—will be read by British Anthropologists with the greatest interest. The distinguished author comes to the conclusion that the Celtæ and the Belgæ (the latter called by modern writers *Kymry*) of Cæsar belonged to different races; the Belgæ being tall, with hair and eyes of a light colour, and having a dolichocephalous or sub-dolichocephalous skull, while the Celtæ (the Gauls of Amédée Thierry) were not so tall, had hair and eyes of a deeper colour, and were brachycephalous. In the time of Cæsar the Celtic race did not dwell further north than the Seine and Marne, and it is a mistake to apply that title to the peoples of the British Islands, Belgic Gaul, and Northern Germany. The mountaineers of Auvergne have preserved the Celtic type nearly pure. The Bas-Bretons are the result of a mixture between the Celtæ and Kymry, the former of whom they the most nearly approach; but the Breton-Gallots, who spring from a cross between Celtic and Kymric elements, to which Germanic elements have afterwards been added, still nearer approach the Celtic types.

The remaining Memoirs contained in the recent volume of the *Revue d'Anthropologie* can be only casually referred to. The chief of them are three letters to the editor, by M. Alex. Bertrand, on the Celts, Gauls, and Francs, the conclusions arrived at by which are adopted by M. Broca in the Memoir just noticed; two articles, by M. Louis Rousselet, on the Races of Central India, illustrated by a representation of the so-called *Bandar-lokh* (men-monkeys) of the plateau of Amarkantak; two Memoirs, by M. Girard de Rialle, on the History and Populations of Central Asia; articles on the Distribution of Dolmens in the Department of the Lozère, by M. le docteur Prunières, and on the Quaternary and Post-quaternary Soils in the Basin of the Seine, by M. Anatole Roujou; an article, by M. Hamy, on the Jivaro Indians of South America; a contribution to the Anatomy of the

Negro, by M. Theophilus Chudzinski ; and lastly, but by no means the least important, two of Dr. Topinard's Memoirs on Prognathism, *maxillary* prognathism, and that of the upper part of the face. It is impossible to do justice to these Memoirs in the space at our command, and we must content ourselves with remarking that Dr. Topinard shows that the prognathism of the upper face, which the measure of the "angle of Camper" erected into a character of the first order, has by no means the importance hitherto ascribed to it, and that the true prognathism is that of the lower part of the face.

NOTES.

MR. A. F. JONES, F.L.A.S., writing from Rio (11 Aug.) says, "Dr. Netto has received a letter from M. Renan, in which the Phœnician inscription alleged to exist in Brazil is criticised in the most severe manner, every second phrase being described as an impossibility. The French *savant* considers the mistakes contained in it to be due not to carelessness in the sculptor or copyist, but to a want of knowledge of the Phœnician language, and gives it as his opinion that it is a hoax." (Query,—Were all Phœnician sailors better skilled in their native language than are mariners at the present day ?)

THE able French Anthropologist, M. de Mortillet, has just arrived at the conclusion that the belief (common in France) in a special race of dolmen builders has no foundation in fact, and this conclusion is supported by Messrs. Broca and de Quatrefages. Our esteemed contemporary, the *Revue Scientifique*, seems to regard the views of M. de Mortillet in this matter as something quite new, but they have been for the most part anticipated by Mr. Lewis in a paper read before the British Association in 1869, and printed in the Journal of Anthropology in 1871.

WE have been favoured with the prospectus of a work, to be published in two volumes demy quarto, which, if it comes up to the promise held forth, will be of great importance. Its title is "The Rivers of Life ; or Sources and Streams of the Faiths of Man in all Lands." The author, Lieut.-Colonel Forlong, appears to have passed a considerable portion of his life in the East, where he collected much information bearing on the subject of his work. A special feature will be a large chart "showing by streams of colour, and chronologically, the risings and fallings, or floods and ebbings, of the various faiths."

PROFESSORSHIP OF ANTHROPOLOGY AND THE ANTHROPOLOGICAL MUSEUM AT MOSCOW.—In a letter recently received from Professor A. Bogdanow, he informs me that the Anthropological Society at Moscow is at present engaged in the organization of a Chair of Anthropology at the University of Moscow ; and that it is intended shortly to establish a museum in connection with this chair. This is an evidence of the high estimation in which our science is held in Russia. J. B. D.

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ANTHROPOLOGIA.

Proceedings of the London Anthropological Society.*

ORDINARY MEETING,

*Held at 37, Arundel Street, Strand, London, W.C., on Tuesday,
3rd March, 1874, at 8 p.m.*

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

Presents announced :—For the Library, “Health Resorts of the South of France,” from C. H. E. CARMICHAEL, ESQ., M.A., F.R.S.L.

The Honorary Secretary read the following paper :—

A DESCRIPTION OF THREE SIAH POSH KAFIR SKULLS.

By J. BARNARD DAVIS, M.D., F.R.S., F.S.A., V.P.L.A.S.

THERE are many races of man which are more or less enigmatical to Anthropologists. Among these, the Kafirs of the Hindu-Kush may be reckoned, as a variety of opinions have been offered respecting them, so as almost to preclude anything like unanimity. I believe Dr. Leitner, the distinguished Oriental traveller, who has seen them and been amongst them, will be able to throw some additional light upon these interesting people. In the hope that two or three observations upon three Kafir skulls, which have fortunately come into my possession, may add something to the knowledge of the physical characters of this race (for I have not any definite expectations from philological investigations respecting them), I readily comply with the request to send the following notes.

* The Council desires it to be understood that, in publishing the papers read before the Society, and the discussions thereon, it accepts no responsibility for any of the statements or opinions contained therein.

These three Kafir crania were presented to me by my excellent friend, Mr. Henry Walter Bellew, the author of the Pukhto Dictionary, and other important works upon Afghanistan and Central Asia, who has spent many years in these regions. The skulls are of unquestionable authenticity, and are most probably the only ones which have reached Europe.

To take them in the order of my "Thesaurus Craniorum":—

No. 1257. KAFIR of Kafiristan. Of the Waigal tribe. This is an extraordinarily fine large skull, of a man of about sixty years of age. Its capacity is indicated by eighty ounces of dry Calais sand, which is equal to 97·2 cubic inches. This internal capacity is exceptionally great, and equals, if not exceeds, the measure of any European race. It represents a brain weighing 49·6 ounces avoirdupois, which is about the average weight of an English male brain. The circumference of the skull is 21·2 inches, its length is 7 inches, and its greatest breadth 5·6 inches. Its height is 5·4 inches. These measures give a cephalic index of ·75, proving it to be a dolichocephalic skull. It is a fine oval cranium, as we have seen, of considerable magnitude, but has rather a recedent forehead. The face is long, the lower jaw deep, the nose prominent and aquiline. There is a mark of an old injury during life above the right orbit, a probable indication that the man belonged to a turbulent race.

No. 1446. KAFIR. Calvarium of a man of about thirty-five years of age. The internal capacity of this calvarium is estimated by 73 ounces avoirdupois of dry Calais sand, which is equal to 88·7 cubic inches, or a weight of brain of 45 ounces. The circumference is 20·1 inches, the length 7 inches, and the height 5·1 inches, which gives a cephalic index rather less dolichocephalic than the former skull, or ·78.

No. 1447. KAFIR. Skull of a child of about six years of age. If we conclude, as I am inclined to do, that No. 1257 is an unusually large skull of this race, and that No. 1446 would represent the average size of the race, we are still led to question the opinion of Mr. Bellew, that the Kafirs are of Hindoo origin, for the Hindoos are remarkable for having small skulls. The average internal capacity, deduced from 35 male and 31 female Hindoo skulls, is 82·5 cubic inches, whilst that of No. 1446 is 88·7 cubic inches. It seems equally difficult to regard the Siah Posh Kafirs as aborigines, for the aboriginal races of India have equally small, if not smaller skulls than the Hindoos; in fact, the two Kafir skulls here described are remarkable for their European aspect and great capacity. Whether there is the slightest ground for the supposition which has been uttered regarding them, that they are descendants of Greek colonists left at Kabul by Alexander the Great, I am wholly at a loss to divine; so that, in complying with the request made of me, I cannot consider that I have thrown any light upon the origin of the Kafirs, but only described their physical features as far as the few materials in my hands have allowed me to do.

By the kindness of my friend, Dr. John Beddoe, F.R.S., I am

able to add an important remark or two respecting the physical peculiarities of the Siah Posh Kafir brought to England by the learned Professor Leitner. His stature, when unclothed, was 5 feet $3\frac{3}{4}$ inches, or 1612 millimètres, his aspect decidedly Aryan, but yet quite dark; his hair dark brown, almost black; his eyes hazel-grey, moustache lighter; his head short and very high, rather flat at the top, not at all acrocephalic; length of head 6·8 inches, breadth 5·9 inches, most like a South German head. This measurement gives a *cephalic index* of ·867, a very decided *brachycephalism*. Probably some correct estimate of his age—a point of extreme interest—may be obtained from Professor Leitner, to whom science is indebted for bringing this man of a most rare and inaccessible race under the eyes of European Anthropologists.

The following address was then delivered on the

LANGUAGE, MANNERS, AND CUSTOMS OF THE SIAH POSH KAFIRS,

By Professor G. W. LEITNER, Ph.D.

WE are going to speak to-night about Kafiristan in the Hindu-Kush, in the narrow sense of the term. The Kuner river forms the south-eastern boundary of the country in question, which extends beyond the Hindu-Kush to Chitral or Kashkar (the country should properly be called Chitral and the capital Kashkar—not to be confounded with Kashghar). Our boundary line, and the eastern boundary of Kafiristan, end at Badakhshan, and, according to the arrangement with Russia, these countries form part of the neutral zone, inhabited by tribes, some of which will perhaps lead us into the adoption of a policy whose end we did not foresee when we constituted the neutral zone. Four years ago, when in England, I wished to point out the boundary of the territory to be kept neutral, which should have included Kunjut. Some of you may have heard that, in crossing the Indus to Ghilghit, in 1866, I discovered the Dard races, a term which generally includes all the races between Kabul, Badakhshan, and Kashmir.

The people, therefore, of whom I am to speak to-night may also be called Dards. All around them are mountains, the mean elevation of which is 16,500 feet, intersected by very fertile valleys, inhabited by that very extraordinary race, the Siah Posh Kafirs. Even a cursory survey of the few individuals from that race whom Europeans have seen would induce us to come to the conclusion that they stand alone in Asia. Their appearance, as you may judge from the man brought here to-night, is not that of Asiatics, and many of their manners (of which I will speak presently) are European. Such traditions as they have lead them to look upon Europeans as brethren, and when Sir William MacNaghten was at Jellalabad many of them came with tomtoms, rejoicing to have found another infidel brother; but they were received in a somewhat purse-proud

fashion by their relatives, the English, and went back again considerably disgusted.

A Kafir also made the acquaintance of Sir Alexander Burnes, and from him, as well as from the others, some slight information was gained respecting the Siah Posh Kafirs, which rather excited than gratified the curiosity of *savans*.

A few Kafirs were also seen by General Lumsden, who tried to get them into his "Guides," thinking they would be excellent soldiers; and I daresay all he expected would have been attained had it not been for the unfortunate circumstance that, when the three men whom he had enlisted went back to their country—that country being surrounded by Muhammadans, who are their deadly enemies—they were killed. Lumsden also, I believe, saw other Kafirs, and collected information which, for no earthly reason that can be conceived, is considered a confidential report to Government, although it contains nothing that might not be published on the house-tops.

Lumsden's statement, derived from these people, with whose language he was trying to make himself acquainted, is the most satisfactory thing we have got, except the account given by Masson. To great independence of character Masson joined a philosophical mind, and those fragmentary notices he was able to obtain respecting this most extraordinary race he put into an excellent form, showing him to be a most conscientious writer. Masson is scarcely known nowadays, and his great services were ignored at the time, and are, I daresay, forgotten now; but, to judge from his books, he was undoubtedly a great man.

In addition to the accounts of Burnes, Lumsden, and Masson, we have one by Dr. Trumpp; but as his intercourse with a few Kafirs who had come to Peshawur was carried on by a Persian interpreter, who knew little of their dialect, while they knew but little Persian, he was not very successful, and the few words put down by him have been shown by me not to be Kafiri at all, but Kohistani, the language of surrounding Mahometan tribes.

Between Peshawur and the Hindu-Kush exist the Mahometan enemies of the Kafir. They are the most turbulent races that can be imagined—much worse than the true Afghans. These people we keep in a desultory kind of subjection, generally by "masterly inactivity," which means bribing them. When troublesome, we call the chiefs together and pay them, and when they have spent the money they begin again. This is a sort of policy that cannot last—it is a source of ever-fruitful trouble; and, with regard to the Kafirs, particularly hurtful, because they have a character, rightly or wrongly, for fidelity, and certainly rightly for bravery. The Mahometans kidnap their children, and sell them. The ruler of Chitral draws the whole of his income from the sale of his subjects, and, when his subjects are not sufficiently prolific, he encroaches on the neighbouring territory, kidnaps the inhabitants, and sells them to Badakhshan; and, were it not for its undoubted bravery, the race of the Siah Posh Kafirs would already have been extinguished.

The Nimtshas, or half Kafirs, who live on the borders of Kafiristan and who profess to be Mahometans, are the only channel of communication between the Siah Posh Kafirs and the outer world. The way the Siah Posh Kafirs retaliate on their enemies is, of course, by killing them ; and the consequence is that the main road between India and Central Asia, which would run through Chitral, is kept in constant insecurity. The Kafirs do not plunder as the Chitralis do, or as some other tribes of the Dards, strictly so called, do, but they kill. At the same time, this mode of retaliation distinctly shows them to be a superior race to the others, because, however rich travellers may be, their property is never touched. It is merely a sort of demonstration to their Mahometan neighbours that they will not allow their children to be carried into captivity. Of course, if a traveller were to succeed in passing the range of mountains which surrounds Kafiristan, and were not a Mahometan, he would be safe. We have sent two native missionaries into the country, who were treated to the sight of the massacre of forty Mahometans by their converts, but who themselves received a most hospitable reception.

Persians are said to have gone in that direction, but I do not think we have ever known much about their doings. Last year Lieut. Downes crossed the frontier, and wanted to go that way, but was brought back, after having left Peshawur only a few hours ; and this most important country, which would only require a little more manly policy to open up, still remains a riddle.

Now we come to the sources of my own information. When I crossed the frontier, then conterminous with the Indus, at Boonji, war was being waged against the Dard and other tribes by the Maharajah of Kashmir, from whom I secured two Kafir prisoners, whom I kept in my house for some months, and tried to ascertain something from them. I had a third man from Kohistan in my service, but he was a Nimtsha. A fourth man, Jamshêd, is here to-night. He had been kidnapped when he was about eleven, and sold into the service of the Ameer of Cabul. He rose into a position of confidence, in doing which he was favoured by his uncle being the celebrated Feramorz, who conquered the countries which the Ameer of Cabul now possesses. Jamshêd was thrown into prison on suspicion of having favoured the Ameer's son, but escaped, and came over the frontier to me, as I keep open house for all men beyond the frontier who choose to come. I found he could give very satisfactory information about Central Asia, though for linguistic purposes my own information exceeded what he could give me, because he was taken away from his country when he was young.

As long as "frontier politicals" exist, so long will mystery be kept up about affairs which ought to be free and open as the light of day. The policy to be introduced should be not merely the whims of this or that officer, based on information kept to himself, but the result of complete knowledge, and a comparison by one department with another, which would throw open all these countries to philanthropy and commerce in a manner more conducive to the

general good of mankind than the very commanding success the Russians have achieved in the north.

It is about the races inhabiting Kafiristan that we have to speak to-night. Close by is Badakhshan, the ruler of which sold the workers of his mines of lapis lazuli because they did not work fast enough, and he thought he should get more by selling the miners themselves. But the races of whom I am to speak are possessed of a capacity for civilization superior to that of our allies by whom they are surrounded. They have always been a great puzzle to us. When we saw their European appearance and heard of the manner in which we were welcomed by them, and considered these things in connection with the undoubted fact of Alexander the Great having gone by Cabul to Peshawur, we supposed them to be descendants of the colony planted by him in that region. I myself have been an antagonist of that theory, but there is much to be said for it. First and foremost is their great peculiarity of appearance; but against that may be urged the complete absence of any tradition or anything which might lead us to identify them with the invasion of Alexander the Great. Such documentary evidence as we have from other writers would go against this conclusion. For instance, Baber, who tried to conquer this people, and gained a small advantage for a short time, says, "I have conquered races which Timour could not conquer, and whom Alexander the Great tried in vain to subjugate." Timour says he tried to subjugate those whom Alexander the Great could not; and these statements militate against the theory that the Siah Posh are descended from soldiers of Alexander. Another suggestion is that they were Zoroastrians driven out by the Buddhist rulers of Balkh, the ancient Bactria. The statues I have dug up show the friendly relations which existed between the Buddhists and the Satraps of Bactria; and we know from history that the Arabs drove the Zoroastrians into the hills. They broke all the sculptures of the Buddhists, and drove the Dards also into the hills. It seems to me that the valleys of the north were likely to be inhabited by Zoroastrians, and the valleys of the south by descendants of a people that were Buddhists in religion. But what were they in race? Those of the north were, probably, of the old Iranian stock, and there is a great deal to be said in favour of that view. The faces of these men in a sort of general way may be said to be European or Caucasian. There is a great width and corresponding vagueness about these terms, and this we must avoid. They resemble the type which we find connected more with the Parsees, who have a larger head than any of the races of the south. They resemble the Assyrians more than any other race, unless it be those on the ancient Persian ruins. It has been suggested that they are men driven in from the plains of India, but the formation of the body and head of the Hindoos is not that of the Siah Posh Kafirs. The Hindu heads are smaller than those of the Kafirs; and if the Kafirs were, as has been suggested, the aborigines of the mountains, their heads would, of course, be smaller still; and to say that they must be Hindoos because they are not Englishmen is no solution of the question. The world, to

many of our officers, is divided between Europeans and "niggers," but there are really many subdivisions between these extremes; and these men are, of course, not negroes in any sense. I so strongly question even their Indian origin that I am tempted to deny it altogether. It has been said that, if they were dressed like the natives of India, they would look like them, but I doubt that, and this photograph of Indians and Kafirs may convince you that I am right.

I do not think the Siah Posh are Macedonians. I believe they are a mixed race of Zoroastrians and Buddhists; but when we ask, "Who were those Buddhists?" we come to a great problem. Hinduism put all the power into the hands of the Brahmins; but when Buddhism came, admitting anyone into its priesthood, it equalized people at once, and was a great blow to caste. Among the Buddhists, the immediate disciples were of various castes, rising gradually to the dignity of the Buddh—an indefinite being, whom Max Müller has attempted to define with precision. If the Kafirs were the aborigines of these parts, we must presume that they were a non-Hindoo race who accepted Buddhism. Fergusson calls them Turanians, but this term is a great deal too wide, and ought only to be applied to the actual plain of Turan and the Tatars, or true Turanians. If there is any infusion of Hindoo blood, it must, I think, have come from Hindoos who became Buddhists. With regard to the people of Afghanistan itself, we know they are Iranian, and descent would bring them close to the Zoroastrians; and, if those Zoroastrians accepted a form of Buddhism, they would still occupy the same country. The only thing in favour of that view is the names of the Kafirs. We have none of the Dara, Feridun, Zohrab, and other names illustrious in Persian history, in the suite of the Shah. In place of them we have the Arabic and Mahometan names of Hassan and such like; but the ancient Persian names only survive among these Kafirs, though I do not wish to attach more value to this fact than it deserves. There were only two peoples who have these Zoroastrian names, the Parsees and the Kafirs. My friend here, Mr. Jamsetjee, is a Parsee; the final "jee" is only an honorific termination, and his name is properly Jamshêd, and that is the name of the Kafir who is present this evening. Possibly, these ancient names are merely given to the Kafir slaves by their Muhammadan masters.

Though the Zoroastrian origin of this people is covered with a certain amount of ridicule, we have, for the first time, so far as we have gone, come to some actual fact—that, if they are any race or sect known to history, they are most likely to be Zoroastrians.

These people have blue eyes and reddish hair, which the Hindoos have not. But it is said that a mountain residence might effect that change. This I doubt. They have not a single Mahometan trait; they do not practise circumcision, they enjoy the flesh of the wild boar, which they kill. They are not Hindoos, because they do not burn their dead; and they eat beef, with the exception of those who have been brought in contact with the Hindoos by some accident or otherwise. They do not, so far as I have gone, know the names of

any of the Hindoo deities. Evidently, from a religious point of view, they are neither Mahometans nor Hindoos. Cashmere is inhabited by Hindoos, who there, curiously enough, rule Mahometans, and the present Maharajah wants to bring together all the non-Mahometan races of the district, as a counterpoise to the Mahometans, and make Hindoos of them. Thus the two men to whom I have alluded, in getting through his country to me, got hold of some of the names of the Hindoo gods, but what their religion really is is a very difficult problem. They had some idea of the signs of the sun and moon, which they thought denoted prosperity, and of seven heavens, but beyond that they knew very little indeed. My man here says they worship very huge rock idols, a hundred and odd feet high. These are Buddhistic. But it does not follow that the present inhabitants are Buddhists. They may be merely struck with these things; and, as the imagination wants something to fasten on, a huge rock figure might serve as well as anything else. But they have also smaller deities, made in the form of their ancestors (?). Once a year they go to the top of a mountain, and deposit a pebble on a heap, but, when you come to question them as to the actual existence of a deity, the Kafir, without presuming to deny it, says he thinks it absurd to suppose he could interfere in human affairs. When you ask him about the immortality of the soul, you again puzzle him; and, though he does not wish to hurt the feelings of others, it is clear to him that such a thing as individual immortality does not exist. Thus enquiries have hitherto been fruitless. Their religion is simply the religion of a conglomeration of mountain tribes that have had no intercourse with the outer world, by which either to be improved or corrupted; in other words, vague notions that have not yet crystallized into a system.

Some of their customs are peculiar. Nearly all the natives of India partake of their food crouching on the ground; but these men sit on chairs, and take their food from a raised platform. The women go about unveiled; this, however, is the practice throughout the mountains generally. They have a greater purity in their conception of love than the Mahometans, but do not come up to the Dards in this respect. Nothing can be more exquisite than some of the ballads of these Dards, who are now being improved off the face of the earth. As the Kafirs are encroached upon by the Afghans, so the kindred Dards are being annexed by Kashmir.

The result of the impulse for annexation which we have given to the rulers of Cabul and of Cashmere will be that races possessing the most charming legends and songs will be driven into other districts, will lose their nationality, and will get mixed up with the Mahometans. It is time now, especially if we wish to solve any of those great questions connected with the Aryans and Turanians, that we should make up our mind to act as becomes a great power, and, if we give countries over to people who never had any right to them, that we should insist that they shall

treat them as civilized feudatories of the civilized and paramount power.

Weddings take place among these people in the usual manner of the mountain tribes, presents being made, and feasts being held. Conjugal fidelity seems to be the rule.

With regard to the government, it is confided to a number of leaders. Sometimes the Kafirs will wage war among themselves. They have much to do to keep their frontiers against the enemies who surround them. Their leaders are selected partly by seniority and partly by merit. Merit in the eyes of the Siah Posh, who have to fight for existence, consists in the number of Mahometans any person may have killed. A man who has killed four gets the rank of chief; if eight, his son succeeds him; but he who has not killed any has his food given him over the shoulders of others, and is looked upon generally as one who has not won his spurs. Yet these people are kind and hospitable to everybody but their Mahometan neighbours. We cannot wonder at their not being particularly so to the latter, as they have to fight with bows and arrows against what were formerly blunderbusses, but what, owing to the British Government, are now Enfields, if not Sniders.

I would mention that although called Siah Posh, or "black-coated," there are, or used to be, white Kafirs; but I think these latter are generally Nimtshas.

With regard to language, their languages are not derivative from the Sanskrit. I have vocabularies of eleven Dard dialects, three of which are Kafir. They differ very much among themselves—as much, say, as German from Latin—but are all of the Sanskritic type, by which I do not mean to say they are derived from Sanskrit. Dr. Trumpp wished to establish this. They are in reality sisters of the Sanskrit, if not in a still older relationship, rising a step nearer to the origin of what we choose to call the Aryan family of languages. The Count de Liancourt and Mr. Pincott have conclusively shown that these languages are not derivatives, but are at least sisters of the Sanskrit. Whether the theory which Count de Liancourt has been the first to put on something like a scientific basis, combined with physiology and other known laws, will form the philology of the future, I know not, but one thing is quite certain, that we shall have to resign ourselves to the possibility of re-arranging the classification of languages. I suppose we have already given up the classification into three groups. Aryan may be held to include Latin, Greek, Slavonic, Teutonic, and how much more I do not know, and some day, perhaps, the connection between Sanskrit and Chinese may be established. In the meanwhile our business is to try and collect facts. We will not dismiss the scientific use of the imagination as an element in our enquiries, but not depend upon it for our facts, as many scholars seem to do, putting all inconvenient facts out of sight. We must try and find out the truth, collect manuscripts and relics of all kinds, and in doing this we should not reject any theory without examination, even if we should be asked, as I was at a learned society the other

night, whether the Siah Posh were not the lost tribes of Israel. I do not think they are, and I told the enquirer so ; but I can have no objection to the subject being gone into with candour.

We cannot possibly have any knowledge of philology unless we embrace in our enquiries that group of languages, eleven in number, which I have been the humble instrument of bringing before the public. I have done little but point out that, from a linguistic and historical point of view, a very feeble introduction has been made to a series of facts well deserving the attention of all *savans*. It may be that those who follow them up will find that I have been mistaken about these dialects. Nothing can be more thankless than to find out unknown languages from unknown races. But, far from feeling any mortification that I have been wrong in this or that shade of meaning, I shall rejoice in the discovery of the truth. I hope that the subject will be gone into, and that government will employ in these countries men who may be trusted, not only to draw their pay regularly, but to know something, and wish to find out more, of the languages, manners, customs, and characteristics of the races among whom they are placed.

DISCUSSION.

The thanks of the meeting having been voted to the author for his address, and for the exhibition of a cap, bow, quiver, lamp, flutes, and other articles belonging to the Siah Posh Kafirs and neighbouring races, and also some photographs,

Mr. NOWROSJEE FERDONJEE said, I had the honour of accompanying the late Sir Alexander Burnes to the countries which have been so ably and skilfully described by Dr. Leitner, and I was present when several Siah Posh Kafirs were brought before the English mission of which Sir Alexander was the head. After examination, he arrived at the conclusion that the Siah Posh Kafirs were descendants of some Greek or Macedonian settlers, who were left in those mountainous regions about the time that Alexander the Great invaded them, and he thought the features of the man he examined most particularly had a Greek or Macedonian cast ; they certainly were neither Mahometan nor Hindoo in appearance or customs. Dr. Leitner has given us his theory, that they are a mixture of ancient Persians or Zoroastrians with the Buddhists. I belong to the race of the ancient Zoroastrians, and take a great interest in all things connected with them ; but I and my countrymen should be very much surprised to find we had co-religionists in that part of the country, although there have been some who are, or might be, supposed to be descendants of the ancient Zoroastrians. I was very near them at Cabul, a whole year ; but, notwithstanding all our enquiries, both Sir A. Burnes and myself failed to discover any traces of the Zoroastrians. Of course there are many people in Afghanistan

and the adjoining countries who bear the ancient Persian names referred to by Dr. Leitner, but that is owing to their having been adopted and handed down from generation to generation. Balkh was one of the chief seats of the ancient Zoroastrians, and traces of them are still to be found there in names which have been adopted by the Mahometans and others who have conquered those countries and vanquished the Persians ; but there is nothing to lead me to believe that either the Siah Posh Kafirs or their ancestors were Zoroastrians. Those whom we examined were utterly ignorant of everything connected with the deity, and on that account I was disappointed in the hope of finding any traces of the ancient religion in that part of the country. Several Persians, it is true, went from Persia, relying on accounts received that the Kafirs were descendants of the ancient Persians, but unfortunately the country is so situated that, if any of them ever arrived there none of them ever came back again, and, though enquiries were made about them, no information could be obtained. Some years ago, when I was in Bombay, a Mahometan came to Bombay and said there was a colony of Parsees residing in these countries under a king or chief. I did not believe in it, but my people were much flattered at the idea of a Zoroastrian king reigning, and gave this Mahometan some splendid dresses and presents to take to him ; but it afterwards turned out, as I expected, that the man was an impostor. Whatever these Kafirs may be, however, they are a nation by themselves, surrounded by Mahometans, but utterly different from them, and a most interesting subject for enquiry. Could any monuments or ancient coins be found among them, much light might be thrown on their history. While we were in Cabul we searched several large mounds, or "topes" as they are called, and found Greek coins, showing conclusively that the Greeks had settled in that neighbourhood, but nothing to identify the Siah Posh Kafirs with either Macedonians or Zoroastrians.

MR. FREDERIC PINCOTT began by saying that philology is the helpmate of ethnology, and that the two sciences cannot profitably be studied apart from each other, as the processes of thought are as hereditary as the physical conformation of the brain. He then went on to say that, in an attempt to fix ethnically the Siah Posh Kafirs, their language is of much importance. A cursory examination shows it to be eminently Sanskritic, and to approach nearer to the old Sanskrit of India, both in the form of words and in grammatical terminology, than anything to be found in Hindustan. The Sanskrit language ceased to be spoken in India about 400 years B.C., and the present vernaculars of India are its provincial representatives changed phonetically by the efflux of time. Now, if the Kalâsha (the language of the Kafirs) came from India, it is clear that its forms would depart more widely from Sanskrit than those found in Hindustan, because they would represent at least a second stage of corruption. The dialects of Hindi, stretching over the North-Western Provinces, do indeed depart widely from their Sanskrit

prototypes, and, upon entering the Punjab, the divergence is in many respects more marked ; but beyond Peshâwur we come upon these Kafirs speaking a language which is nearer to classical Sanskrit than even the ancient Prākritis of India, or the old Pāli. We have, then, the remarkable fact that the Kalāsha, on one side, and the dialects of Hindî, on the other, are separated from each other by a cushion, so to speak (the Panjābî), which precludes all supposition of through communication of language. Furthermore, it may be considered an axiom in philology that a word once corrupted does not, by further corruption, come nearer to the original whence it started. Applying this principle to an examination of the language of the Kāfirs, we find that throughout India the " ear " is called *kān*, a corruption of the Sanskrit *karna* ; in Kalāsha, however, the word *koron* is employed, which, by the presence of the letter *r*, proves that it could not have been deduced from the Indian *kān*, in which the *r* is lost. Again, the " lip " is in India *onth*, in Sanskrit *oshtha*, and in Kalāsha *ūsht* ; the presence of the *sh* places this word much nearer to the Sanskrit than the Indian form. In Sanskrit the " eye " is *akshi*, in Kalāsha *êteh* (in Gilgitî, a neighbouring dialect, *atchi*), but in India *ānkh*. In Sanskrit a " fish " is *matsya*, in Kalāsha *matzî*, in India *machhlî* or *mîn*. In Kalāsha the word for " heaven " is *dî*, almost identical with the Sanskrit *dîw*, a word which is no longer in common use in India. These instances could be greatly multiplied, and they unite in proving conclusively that the Sanskritic stratum of language found among the Siah Posh Kafirs is older in character than that existing in India, and therefore could not have been derived from it. But, as it might be thought that mere verbal resemblances might be due to accident, it is interesting to find that the grammar of Kalāsha preserves some Sanskritic inflexions, which have for ages ceased to be used in India. Thus in India the genitive is now formed by the addition of a separate particle, but in Sanskrit it was formed by the addition of the syllables *-sya* or *-as* ; for instance, *strî*, " a woman," makes *striyâs*, " of a woman." In modern India *strî* is become *tiyâ*, and the genitive is *tiyâ kâ* ; but in Kalāsha *strî* exists almost pure as *striya*, and the genitive is, precisely as in Sanskrit, *striyâas*. So also *shâ*, " a king," makes *shâas*, " of a king ;" and *pâtr*, " a son," makes *pâtras*, " of a son ;" all clearly showing that this old Sanskrit genitive in *-as* still lives in Kalāsha.

Dr. Trumpp is of opinion that the Kalāsha genitive *as* is an abbreviation of the Prakut *assa*, the equivalent of the Sanskrit *sya* ; but even in this case we find a corrupted Sanskrit form preserved in Kafirstan, though entirely lost in India.

Nor is this all ; in the inflexion of the verbs, also, we find the Sanskrit methods, long since disused in India, survive among the Siah Posh Kafirs. Thus the method of forming a preterite by means of an initial augment, familiar to all classical scholars, is the ordinary law of Sanskrit, but has ages ago died out in India. This remarkable inflexion still, however, subsists in Kalāsha. Thus we have *tshishtim*, " I stand," and *a-tshishtis*, " I stood," precisely like the

Sanskrit *tishthāmi*, "I stand," and *a-tishtham*, "I stood." This is not a peculiarity confined to one verb, but affects all Kalāsha verbs of which the past tenses are given in Dr. Leitner's volumes. Thus *im*, "I come," *ā*, "I came," the broad *ā* resulting from a union of the augment *ā* with the *i* of the base (as in Sanskrit *i*, "go," *ai*, "went"). Again, *him*, "I am," and *āsis*, "I was," the equivalents of the Sanskrit *asmi*, "I am," *āsam*, "I was."

In the foregoing manner it was shown by Mr. Pincott that both the grammar and the vocabulary of the Kalāsha being nearer of kin to the Sanskrit than those of any other language known to exist, they could not have been derived from any dialect of India, but must have resulted from an independent current of history. This fact points to the conclusion that the Siah Posh Kafirs are part of the pre-historic Aryan family, some of whom passed to the west as Greeks and Persians, and some to the south as Hindus, while some (represented by the Kafirs) remained behind in their primitive homes in Central Asia.

Mr. GEORGE BROWNING (Hon. Secretary of the Society for the Encouragement of the Fine Arts) said that, where we find fresh and sparkling springs of water, we drink and drink again; so he might be allowed to elicit from the lecturer, in his reply, information that doubtless would prove valuable to the meeting on several most important points. (Hear, hear.) He ventured, then, to make the enquiry, whether their songs and legends, to which Dr. Leitner so enthusiastically referred, were gathered into his grand collection orally from the people, or whether they exist in native MS. Let us hope the learned orientalist will at some future time enlighten Europe with a translation of the most important of them, as it is the primitive literature of a country that lends invaluable assistance to ethnological research, and throws much light on the social, amorous, or warlike tendency of the people.

Now, with regard to the black stone lamp, richly ornamented, that Dr. Leitner has procured from Kafiristan, it would be interesting to know whether this is native art; if so, there must be still much to discover of art-remains in the country; as, before these exquisite and highly-finished patterns could be produced (art being essentially Darwinian or progressive), there must have existed an immense previous art development. To him it did not appear at all probable that this was native art, although that art did exist in an advanced state in those Punjab frontier countries. Dr. Leitner, in his recent admirable lecture before the Society for the Encouragement of the Fine Arts, on Græco-Buddhistic sculptures, forcibly proved this; for in the specimens exhibited on that occasion, that were dug out at Takht-i-bahai, in Yusufzai, Mr. James Fergusson, the eminent author of "Tree and Serpent Worship," recognized the missing link in art history hitherto unexplained; and that, consequently, opens up an altogether new era in the history and development of art among the Buddhists, working directly under Greek influence. He was very pleased to think the Vienna International Exhi-

bition juries, in group xxvi., "Education, Instruction, and Culture," conferred upon Dr. Leitner (the only exhibitor from Great Britain, India, and other British Colonies honoured with this highest distinction) "a Diploma of Honour," and not only in Vienna, but throughout Europe, all the learned societies would take pleasure in conferring distinction on one who so richly deserves their deepest gratitude and most sincere thanks.

Mr. VILLIERS SANKEY remarked, that although the information copiously and ably conveyed by Professor Leitner left hardly anything to be desired, still it would perhaps, in order to make the subject altogether complete, be advantageous if the indefatigable traveller would be good enough to state whether the inhabitants of the part of India alluded to dwelt in regular towns and villages, or whether they inhabited solitary dwellings on the hill-sides, or camped in tents. Also, whether they were given to hunting or to agricultural pursuits, whether they were nomadic, as a rule followed any arts, engaged in commercial avocations of any kind, or were addicted to any particular species of traffic.

Dr. CARTER BLAKE measured the head of the Siah Posh roughly with a tape and rule, and found the occipito-frontal arc to be 15 inches, the horizontal circumference to be 20 $\frac{3}{4}$, and the interauricular arc to be 15 $\frac{1}{2}$ inches.

Mr. GRAZEBROOK asked the number and extent of the populations described by Dr. Leitner. He thought we should not allow them to be destroyed.

Mr. J. JEREMIAH, Jun., was glad to have had the pleasure of listening to the eloquent address by Dr. Leitner. Speaking as a student of primitive culture only, he was much interested by the account of the intellectual status the Siah Posh Kafirs had attained to when discovered by him. The science of man is essentially one of comparison, whether it be of tradition, folk-lore, legends, laws, or politics; and further, the wider our knowledge of almost unknown races, the more complete is the comparison and the more apparent the evolution and history become. The curious custom of placing a stone on the top of a hill once a year has its counterpart in Wales, Cornwall, Scotland, and Scandinavia; the well-known Scotch proverb, "*Curri mi clach er do cuirn*"—"I will add a stone to your cairn." The building of cairns, by *throwing* stones down, is now almost obsolete; in some places it is done by way of malice, or, perhaps, *generous* contempt. Feeding untried or unvalorous men from *behind*, by way of casting ignominy upon them, seems a part of a certain event recorded in the New Testament to the effect, "Get thee behind me, Satan."

The PRESIDENT said, if the dialect of the Siah Pōsh Kāfirs is a sister of the Sanskrit, it is without doubt an exception to other Indian languages containing Sanskrit words, which would appear to be corruptions from that language. But the Siah Pōsh dialect might have borrowed words from other languages. The Dardī have a language of their own, but also speak Pukhto—*i.e.*, Afghānī, a language based upon Arabic and Persian, but containing words from

Sanskrit, Pehlavi, Turkish, Urdū, Hebrew, and other languages. The Siah Pōsh Kāfirs might also have borrowed from the Pukhto, and perhaps also from the Tibetan, which contains many Sanskrit words.

With reference to the remarks as to the lost tribes of Israel being found in these parts, there are some curious facts, although they are perhaps merely accidental. According to the best Persian historians, the Afghāns are descended from the Jews. The Afghāns, according to their own traditions, are the posterity of Malik Talūt—*i.e.*, King Saul; although, since their conversion to Islām, they have endeavoured to conceal the fact. The Afghāns, especially the Kābuli, have quite Jewish features, and have many Hebrew customs. Again, Kābul was the appellation of a region, and of a town and fortress in the Scripture area. Suleiman is the name of a mountain range in the East of Afghanistan, the culminating point of which is called Takht-i-Suleiman; *i.e.*, “the seat or throne of Solomon,” the Gaza of classical writers. It is a curious fact that Dagon is a name for God among the Kāfirs of Kafiristān. It looks like the Hebrew Dagon, although the Arabic has also the latter word, without nunnation, and with nearly the same meaning.

Professor LEITNER said, in reply, With regard to the remarks of Mr. Ferdonjee, I have not the least doubt that the inhabitants of Khotan are Mahometans—they are ruled over by Muhammadans, not by Zoroastrians—but the desire of the Parsees to find a remnant of their fellow-countrymen is so great, that they lay themselves particularly open to impostors, and it is a good thing he has pointed that out. When I was in Bombay for a short time, some man created an immense sensation by some tale of the kind Mr. Ferdonjee mentioned. He holds that they are not Zoroastrians, and began by attacking that origin. This discussion has been going on for thirty or forty years; but, when no one knows anything, everyone can conjecture what he pleases. The Parsees supported a man at Bombay who professed to be a Siah Posh Kafir, and by that means lived on the fat of the land. I sent for him, and found he was nothing of the sort. We know exactly how many Kafirs we have seen, or have been seen, either in Cabul or on the frontier of the Punjāb, and, till the man who is here to-night crossed the Sutlej, not one had been south of that river.

The vocabulary of Burnes, which I have referred to, consisted of 124 words and five short sentences. But Lumsden did a great deal more, and gave us, so far as length is concerned, an admirable vocabulary. Masson I have complimented highly, but less than he deserves; and Trumpp, I believe, was the first who saw the connection between these languages and Latin.

There are great difficulties in the way of any theory, and I am only somewhat inclined to the Zoroastrian theory. There are objections to any other theory; and, as a modest explorer, I can only say I give the problem up. I am glad a Parsee gentleman of such eminence can be found to warn his countrymen. When I was in Bombay, I told them the Kafirs were not related to them, for I was then strong on the Macedonian origin.

Major Raverty writes a letter in which he appears to think that I claim to have discovered the Siah Posh, but this is not the case. What I have said was that I discovered the Dard races. What I claim to have done in respect to the Siah Posh is to have increased our knowledge of their languages. I claim also to have brought the first man over from Yarkand, in 1869, and to have shown the influence of the Greeks upon Buddhistic art, and I also claim to have brought over here for examination and criticism the originals, whether of men or of works of art, of which others have only brought sketches.

I would draw your attention to what Mr. Pincott has said, who, with Count de Liancourt, has shown that the languages of these people are sisters, and not daughters, of the Sanskrit. I have had some hesitation in adding Kalasha to the Dard languages, but I have no hesitation after what Mr. Pincott has said. It is a good point to arrive at; can we get beyond it? I think, in the Khadjunah, we have one of the most ancient languages, though not of the Sanskritic type.

In reply to Mr. Grazebrook, I may say that I believe the Siah Posh are divided into three great tribes, with minor subdivisions, and I really do not think they number more than 300,000 souls; then the Nimtshas, 100,000; the Safis, 5,000; the Chitralis, 80,000, or perhaps less, as their ruler has had a financial crisis to tide over, and has had to sell more than the usual number of his subjects; the Bajauris, 40,000; the Swatis, 50,000; the Bunairis, 20,000; the Chilasis, 10,000. As regards the massacres, Yassin is said to be a charming country, with generous and hospitable inhabitants. It was annexed by our ally the Maharajah of Cashmere, without our knowledge, and against treaty; and, as I was sent on a linguistic mission by the British Government, I was not allowed to tell the Government anything about the country; they were so satisfied with the linguistic information that they did not want to know anything else. At the fort of Yassin alone two thousand women and children were killed. Hayward, who went four years after me, and was killed, as I consider, at the instigation of our feudatory, counted 600 skulls six years after the massacre. Yassin and Ghilghit are almost depopulated, and yet the Maharajah's troops barely held their own in 1866, when I was there. I got a man to go round the country and invite the people to a feast, and about 150 came, although the Maharajah's Sepoys thought they were all killed off. They profess the Shiah form of Mahometanism, and by so doing have been able to preserve their own legends, which they would have had, as Sunnites, probably to give up. About one million would be a most liberal estimate of all the populations between Kabul, Badakhshan, and Kashmir. We have sold them into comparative slavery to the Maharajah of Kashmir, and we ought to make him adhere to our treaty. Now we know what a bad bargain we have made, we ought not to go beyond it, or connive at his taking more, but adopt a determined policy. If I had been allowed, in 1869, to communicate information to the Govern-

ment, we might have been prevented from fixing the zone between ourselves and Russia in the manner which we have adopted.

The men defend the country, and take charge of the sheep ; the women do all the agricultural work. The houses are made in the rock, in a series of caves ; the doors are made of wicker-work. Art exists in a very primitive form amongst the Siah Posh Kafirs — that Græco-Buddhistic idols will be found among them I believe. At present, the idols which the Kafirs worship are very coarsely made. As to Kafir art, you have, I regret to say, seen all I have to show.

With regard to what Mr. Browning said, the legends of the Dard country will be published very shortly. They are very interesting, and give an insight into the early existence of cannibalism. They are very epic and pure, which is not the case with modern Hindoo stories, though nothing can exceed the purity and devotion of the early Hindoo writings. Among the common people of India of the present day, especially the Mahometans, love songs are most in use ; but among the Dards there remain songs descriptive of the return of the young men from warlike exploits. As to the danger of travelling in these countries, our party was reduced, by desertion and otherwise, from fifty to three ; but the only real danger we have had to encounter was from our own Kashmir allies, who got men, dressed up as natives, to make an attack upon our party. What tells with the natives is truthfulness and kindly firmness, or, when absolutely necessary, unmistakable firmness. Temporising will not do with people who are born diplomatists. Another key to success with them is sympathy for them, a wish to do them good. Trust in them as if you thoroughly believed in them.

With regard to the Hebrew origin of the Afghans, no doubt the Afghans themselves say they are of Israelitish descent, and Scriptural names abound among them ; but what is their assertion worth ? Nothing can be more vague than Muhammadan tradition, according to which David, Jesus, and Alexander the Great were prophets, while the rulers of Badakhshan say they are descended from the latter.

Referring to the last of Mr. Jeremiah's remarks, I do not know what a man can do if he wants another to go away except to tell him to go ; so I do not attach great importance to that coincidence. I should like to point out to Mr. Ferdonjee the custom that these people have of exposing their dead on the mountains. In Bombay there are no mountains, so the Parsees have built towers, and expose the dead in them. I do not wish to draw an analogy, but the fact is rather curious.

The meeting then separated.

ORDINARY MEETING,

*Held at 37, Arundel Street, Strand, on Tuesday, 17th March, 1874,
at 8 p.m.*

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The Minutes of the Meeting of 3rd March were read and confirmed.

The following papers were read :—

SPIRITISM AMONG UNCULTURED PEOPLES COMPARED
WITH MODERN SPIRITUALISM.

By C. STANILAND WAKE, V.P.L.A.S.

WHETHER what is known as Modern Spiritualism is true or false, it must have an equal influence on those who believe it to be true. As being, then, influential for good or for evil over the lives of thousands of people, its phenomena are deserving of most careful attention. For the same reason the analogous phenomena which have been from time to time observed among uncultured peoples are also worthy of study. There is little doubt that nearly everything which has been done by modern Spiritualists has been performed from time immemorial by the Shamans, or sorcery doctors, of the Turanian and allied tribes of the American and African continents. The two great essentials required in either case are the existence of disembodied spirits and mediums through whom they can communicate with man. As to the former, I much doubt whether there is any race of uncivilized men who are not firm believers in the existence of spirits or ghosts. In most cases, and probably in all originally, these are the spirits of dead men, who are thought, for a time at least, to wander about the scenes of their material life, and occasionally to make their presence known by sounds or by a visible appearance. So great is the dread of ghosts among many of such peoples that they will hardly venture out of their huts after dark, and when any person is compelled to do so he invariably carries a light, although he would not have the slightest difficulty in finding his way without its aid. Nor is the medium wanting among the uncivilized races. The most influential man in the tribe is the sorcery doctor, except where he is merely a tool in the hands of the chief, and all his influence is due to his supposed control over, or, at least, communication with, the denizens of the spirit world. By their aid he is able to bewitch his own enemies or those of the persons who seek the exercise of his supernatural power, and, on the other hand, to discover the origin of the disease under which the sick man is wasting away, and to remove it from him should the spirits be propitious. The sorcery doctor of an African tribe, like the Shaman of the Mongol, is in fact a very oracle through his supposed power of receiving communications from his

immaterial assistants. Moreover, the means by which he becomes *en rapport* with the spirit world are exactly the same as those employed by the Spiritualist, although the mode in which the mediumistic condition is induced may often be very different. Whether arrived at by a process of mesmerism, or by means of a ceremony attended with great physical and mental excitement, or, on the other hand, induced by extreme exhaustion, or whether it is caused by a kind of intoxication, the condition required is one of trance. The most simple mode of attaining it is probably the *self-mesmerism* of the Zulus of Natal, an intense concentration and abstraction of the mind, giving the clairvoyant faculty. Canon Calloway states that this process of "inner divination" is commonly practised by herd boys for the purpose of finding cattle which have strayed; and it is even used as a means of escape by those who are threatened with destruction by a jealous chief.

This clairvoyant power, which is intimately connected with Spiritualism, is by some peoples ascribed to spirit communication. Thus, says Scheffer, among the Laplanders,

"When the devil takes a liking to any person in his infancy, he haunts him with several apparitions. . . . Those who are taken thus a second time see more visions and gain great knowledge. If they are seized a third time they arrive to the perfection of this art, and become so knowing, that without the drum (the magic drum which answers to the tambourine of the Mongol and the rattle of the American Indian) they can see things at the greatest distances, and are so possessed by the devil, that they see them even against the r will."

Scheffer adds that on his complaining against a Lapp on account of his drum, the Lapp brought it to him, "and confessed with tears that, though he should part with it, and not make him another, he should have the same visions as formerly;" and he instanced the traveller himself, giving him "a true and particular relation" of whatever had happened to him in his journey to Lapland. He complained, moreover, that "he knew not how to make use of his eyes, since the things altogether distant were presented to them." According to Olaus Magnus, the Lapland Shaman

"Falls into an ecstasy and lies for a short time as if dead; in the meanwhile his companion takes great care that no gnat or other living creature touch him, for his soul is carried by some ill genius into a foreign country, from whence it is brought back, with a knife, ring, or some other token of his knowledge of what is done in those parts. After his rising up he relates all the circumstances belonging to the business that was enquired after."

Among the special spiritualistic phenomena which are recognized among uncultured peoples are spirit-rapping, spirit-voices, and the cord-unloosening, which, when first exhibited, created in England so much astonishment. The last-named phenomenon is not unknown to the North American Indians, and is practised by the Greenlanders and by some of the Siberian Shamans. Thus, among the Samoyedes,

"The Shaman places himself on the ground upon a dry reindeer skin. Then he allows himself to be firmly bound, hands and feet. The windows are closed, and the Shaman calls upon the spirits, when suddenly a noise is heard in the darkened room. Voices are heard within and outside the court; but upon the dry reindeer skin there is regular rhythmical beating. Bears growl, serpents hiss, and squirrels

seem to jump about. At last the noise ceases. The widows are opened, and the Shaman enters the court free and unbound. No one doubts that the spirits have made the noise and set the Shaman free, and carried him secretly out of the court."

We have here the noises, voices, and rope untying which are so common in spiritualistic *séances*. These find a still closer parallel in the curious rites of Greenland Shamanism, the object of which is to enable the spirits of the sorcerer to visit heaven or hell as occasion may require. The historian Crantz thus describes the ceremony:—

"First the devotee drums awhile, making all manner of distorted figures, by which he enervates his strength and works up his enthusiasm. Then he goes to the entry of the house, and there gets one of his pupils to tie his head between his legs, and his hands behind his back with a string; then all the lamps in the house must be put out and the windows shut up. For no one must see the interview between him and the spirit; no one must stir, not so much as to scratch his head, that the spirit may not be hindered, or rather that he may not be detected in his knavery. . . . After he has begun to sing, in which all the rest join with him, he begins to sigh and puff and foam with great perturbation and noise, and calls out for his spirit to come to him, and has often great trouble before he comes. But if the spirit is still deaf to his cries, and comes not, his soul flies away to fetch him. During this dereliction of his soul he is quiet, but by and bye he returns again with shouts of joy—nay, with a certain rustling, so that a person who has been several times present assured me that it was exactly as if he heard several birds come flying, first over the house, and afterwards into it. But if the Torngak (or spirit) comes voluntarily, he remains without in the entry. There an Angekok (or magician) discourses with him about anything that the Greenlanders want to know. Two different voices are distinctly heard, one as without and one as within. The answer is always dark and intricate. The hearers interpret the meaning among themselves, but if they cannot agree in the solution, they beg the Torngak to give the Angekok a more explicit answer. Sometimes another comes who is not the usual Torngak, in which case neither the Angekok nor his company understand him. . . . But if this communication extends still further, he soars aloft with his Torngak on a long string to the realm of souls, where he is admitted to a short conference with the *Angekut poglit*, i.e., the fat or the famous wise ones, and learns there the fate of his sick patient, or even brings him back a new soul. Or else he descends to the goddess of hell, and sets the enchanted creatures free. But back he comes presently again, cries out terribly, and begins to beat his drum; for, in the meantime he has found means to disengage himself from his bonds, at least, by the help of his scholars, and then, with the air of one quite jaded with his journey, tells a long story of all that he hath seen and heard. Finally, he tunes up a song, and goes round, and imparts his benediction to all present by a touch. Then they light up the lamps, and see the poor Angekok wan, fatigued, and harassed, so that he can scarce speak."

Except that the civilized medium attains to a state of trance without so much excitement, and does not, while in that state, take so distant a journey, the account given by Crantz would almost answer for a description of a spiritual *séance*. Most of the occasions in which the sorcerer is consulted would seem to be cases of sickness. Illness is usually supposed to be caused by the agency of spirits, who are annoyed at something having been done or omitted, and the mission of the sorcerer is to ascertain whether the sick man will live or die, and, if the former, what offering must be given to propitiate his tormentors. Among the Zulus, the diviners who eat *impepo* medicine answer, in a measure, to the Mongolian Shaman, although they do not profess to have intercourse with supernatural agents. This is reserved, apparently, for the diviners having familiar spirits. These people do nothing of themselves, sit quite still, and the

answers to the questions put by enquirers are given by voices at a distance from them. Canon Calloway gives two curious instances of this mode of divining. In one of them a young child, belonging to a family from another kraal which had settled in a village of the Amahlongwa, was seized with convulsions, and some young men, its cousins, were sent to consult a woman who had familiar spirits. They found the woman at home, but it was not until they had waited a long time that a small voice proceeding from the roof of the hut saluted them. They were, of course, much surprised at being addressed from such a place, but soon a regular conversation was carried on between them and the voices, in the course of which the spirits minutely described the particulars connected with the child's illness—a case of convulsions. They then told the young men that “the disease was not properly convulsions, but was occasioned by the ancestral spirits, because they did not approve of them living in their relative's kraal, and that, on their return home, they were to sacrifice a goat (which was particularly described), and pour its gall over the child, giving it at the same time Itongo medicine.” This took place in the day time, and the woman did nothing but occasionally ask the spirits if they were speaking the truth. “The young men returned home,” says Calloway, “sacrificed the goat, poured the gall on the child, plucked for him Itongo medicine, and gave him the expressed juice to drink;” and the child had no return of the convulsions, and is still living. The statement that, during the interview, the woman, did nothing but occasionally ask the spirits if they were speaking the truth, is somewhat suspicious, but, whatever the explanation of the case, one thing seems certain—the young men had not seen the woman before, as she lived on the coast, a day and a half's journey from them. In the other instance referred to, the ultimate result was not so favourable, as the sickness was not removed, but it was attended with an incident by which we are again reminded of the phenomena of Spiritualism. The spirits promised to dig up and bring to the diviner the secret poison which they said was causing the sickness enquired about. At the time appointed for the poison to be exhibited the old people assembled in the diviner's hut, and, after arranging themselves in a line at the request of the spirits, they soon heard, first one thing fall on the floor, and then another, until at length each person was told to take up what belonged to him and throw it into the running stream, when the disease would be carried away. On examining the things “some found their beads which they had lost long ago; some found earth bound up; others found pieces of some old garment; others shreds of something they had worn; all found something belonging to them.” In this case, also, the voices came from above; but among some peoples the spirit enters into the body of the diviner, in like manner as with spiritualistic mediums. This is so in China, where the spirit of the dead talks with the living through the male or female medium, as the case may be—and with all uncultured peoples, in fact, who look upon their priests, or sorcery doctors, as oracles.

There are two phenomena known to Spiritualists which we can expect to find only among cultured peoples. One of these, the so-called spirit writing, has been practised by the Chinese probably from time immemorial, and is effected by means of a peculiarly shaped pen held by two men and some sand. The presence of the spirit is shown by a slow movement of the point of the pen tracing characters in the sand. After writing a line or two on the sand, the pen ceases to move, and the characters are transferred to paper. After this, if the response is unfinished, another line is written, and so on, until the pen entirely ceases its motion, which signifies that the spirit of the divinity has taken its departure from the pen. Like the spirit drawings of modern mediums, the meaning of the figures thus obtained is often very difficult to make out. The other phenomenon is the rising and floating in the air, in which Mr. Home is, or was, so great an adept. This in all ages has been the privilege of the saints, Asiatic or European, Buddhist or Christian, who have attained to a state of spiritual ecstasy.

At the beginning of this paper it was said that, so long as the phenomena of Spiritualism are believed to be true, they have equal influence, whether true or false. On the other hand, it must not be thought that, because they are accepted as true by uncultured people, therefore they *are* false, as being merely due to fraud or superstition. To those even who believe in a spirit world, the question of spirit action in connection with the phenomena is one of the utmost difficulty; and in conclusion I would refer to a possible explanation of the most remarkable of them, based on physical facts recorded by spiritualists themselves, without the necessity of seeking spirit agency. It has been noticed that the faces which appear at the openings of the cabinet in which the Spiritualist mediums sit are usually at first, if not ultimately, much like the mediums themselves, and yet it seems to be absolutely impossible, considering how they are secured, that such could be the case. It may, however, only be impossible under the *ordinary* conditions of physical life. If certain phenomena said to have been observed were so in reality, the apparent difficulty is removed. It has frequently been noticed that colouring matter placed on a spirit hand has afterwards been found on the hand or body of the medium. This has been established by experiments tried for the purpose. Further, it is stated that occasionally, when a light has been suddenly struck, a long hand and arm have been seen swiftly drawn in towards the medium. Moreover, the body itself of the medium, absurd as such a thing appears to be, has been seen to elongate, if we are to believe the statement of Mrs. Corner, made through the *Spiritualist*, in connection with the medium, Miss Cook. The familiar spirit of this medium has been seen rising from her body, and some Spiritualists believe that the spirits usually, if not always, rise out of their mediums. In the instance just mentioned the spirit was said to have been visibly connected with the medium by cloudy, faintly luminous threads.

If we accept these statements as true, most of the phenomena of

Spiritualism are explainable without reference to the agency of spirits. They would show that the human body must contain within itself an inner form, be it material or immaterial, which, under proper conditions, is able to disengage itself either wholly or partly from its outer covering. The spirit hands which appear, and which are able to move heavy weights and convey them long distances through the air, would really be those of the medium. The faces and full length figures which show themselves, holding conversations, and allowing themselves to be touched, and even permitting their robes to be cut, become the faces and figures of the mediums. This view receives confirmation from the Spiritualist standpoint, from the fact (if such it be) that the "doubles" of well-known mediums have sometimes been recognized in the presence of the originals, and (seeing that Spiritualists believe the body to be capable of elongation) it is not inconsistent with what has been observed that the spirit figure is sometimes much taller than the medium. It is consistent, moreover, with the facts, that the distance from the medium within which the spirit figures can appear is limited, and that if the hands of the medium be held closely *from the first*, many of the manifestations cannot be produced. This point has been insisted upon as proof of imposture; but assuming, for the sake of argument, the truth of what is said as to the human "double," it simply shows how intimately associated are the external covering and the inner form which has to become disengaged to show itself.

While offering this explanation of many of the most important phenomena vouched for by the advocates of Spiritualism, it must be understood that I do so simply to show that such phenomena, according to the evidence of Spiritualists themselves, do not require the intervention of spirit agency. I should not, however, have referred to the subject at all except for its bearing on the past history of mankind. As stated at the beginning of this paper, Spiritism has a marvellous influence over the mind of uncultured man, and it has retained its influence almost unimpaired through most of the phases of human progress. A late French writer, after stating that superstition was supreme in the Roman Empire at the commencement of the Christian era, declares that magic was universally practised, with the object of acquiring, by means of "demons"—the spirits of the dead—power to benefit the person using it, or to injure those who were obnoxious to him. It is thus evident that the phenomena to which the modern term "Spiritualism" has been applied are of great interest to the Anthropologist, and, indeed, of the utmost importance for a right understanding of some of the chief problems with which he has to deal. They constitute an element in the life-history of past generations which cannot be left out of consideration when their mental and moral condition are being studied; and modern *Spiritualism* may, therefore, be studied with great advantage as a key to what is more properly called *Spiritism*. Not that the former can be considered as an instance of "survival," in the proper sense of this phrase. Apart from such isolated instances as that of Swedenborg,

Spiritualism is of quite recent introduction, and it appears to have had no direct connection with its earlier prototype. It is worthy of note, however, that it sprang up among the people who have long been in contact with primitive tribes, over whom Spiritism has always had a powerful influence. It is possible that internixture of Indian blood with that of the European settlers in North America may have had something to do with the appearance of Spiritualism, which would thus be an example of intellectual reversion, analogous to the physical divergence to the Indian type which has by some writers been ascribed to the descendants of those settlers. Or the former may be merely a resemblance, instead of a reversion, dependent on the change in the physical organism. In either case, it is somewhat remarkable that many of the so-called "spirits," which operate through Spiritualist mediums, claim to have had an American-Indian origin.

I have not attempted to exhaust the subject in this communication, nor do I suppose that it will furnish any satisfactory explanation of the phenomena referred to. My sole object is to bring the question of Spiritism, in its ancient and modern phases, before the members of this society, that it may receive at the hands of such of them as are more conversant with the subject than myself the attention which it deserves. Whatever may be thought of Spiritualism and its eccentricities, experiences similar to those on which it is based have had too wide and lasting an influence over mankind to allow of its being lightly estimated by the Anthropologist, who is concerned with it, however, only under that aspect.

OPINIONS OF THE BRAHMINS RESPECTING SPIRITISM AND SUPERNATURAL PHENOMENA.

By G. M. TAGORE (a Brahmin, and late Professor of Hindoo
Law at University College, London).

BRAHMINS believe that there are two kinds of supernatural beings, good and bad, which are supposed to enter the body and produce disease; these are called Bhuton mada (devil madness) and Debon mada (madness produced by good spirits). A person when attacked by devils shows his aversion to everything divine, and is very strong; when good spirits possess a person, he has always a pleasure in flowers and good smells, becomes pure and holy, and is inclined to speak Sanscrit. He obeys Brahmins with strictness, and looks courageous. Devils know the present, the future, and what is hid or unknown. Unclean and wounded persons may be injured by devils. They are numerous and powerful, and are believed to be the attendants or servants of Shiva, and this is why the affected person has more energy and power than that of man. There are eight principal devils that torment the human species.

1st. When Deba graha, or a good spirit, enters a body, the person

is always happy and contented, remains clean in his person, and wears garlands of the sacred flowers, but he has no sleep. He has a great love for Brahmins, performs the prescribed ceremonies, and attends to old customs of his ancestors.

2nd. *Asurgraha*. These are the enemies of the *Detas*. When the person is possessed with them, he perspires much and speaks of the bad conduct of the Brahmins. He has no fear, his eyes are turned, he is a glutton, is not pleased with his food and drink, and is always mischievous. And so on.

The symptoms of persons possessed with devils are, their eyes are swollen, they walk fast, are always sleepy, and sometimes they are affected with severe shivering. During the cure the patient should be treated kindly. The cure of a person possessed with a devil should be commenced by cleaning and anointing his body with mustard oil; he should be dressed in new clothes, and he should repeat the proper prayers so as to satisfy the devil.

The Hindoos and Pythagoreans agree in the belief that the heaven is peopled with gods, the earth with men, and the middle or aerial regions with demons. Pythagoras and his successors held the doctrine of metempsychosis, as the Hindoos do the same tenet of the transmigration of souls. The Hindoos, like Pythagoras, assign a subtle ethereal clothing to the soul apart from the corporeal part, and a grosser clothing to it when united with the body, and called *Linga sharira*. Air is either eternal, as atoms, or transient, as aggregates; organic aerial bodies are beings inhabiting the atmosphere and evil spirits who haunt the earth. At the moment of death, the material elements of the body separate, and the vital soul has an invisible body (*Linga sharira*) resembling the form of the body it had inhabited and retaining the organs of sense and action. On separating from one, it joins itself to another, and according to the actions he had performed in a former state of existence, so will be his future condition.

The old Hindoos had no notions of angels such as the Christians have. Perhaps, through Western culture, their spiritual notions will be refined in time. The idea of possession by good spirits is, I find, peculiar only to the Hindoo race, and it is not traceable in the demonology of the Christians or the Jews. The doctrine of an essential body that survives the destruction of our present body throws considerable light on the fifteenth chapter of Corinthians, and may, in the order of Providence, be a prelude to the acceptance of Christianity.

THE INTERPRETATION OF MYTHOLOGY.

By J. KAINES, Doct. Sci., M.A., Tr. L.A.S.

PERHAPS nothing has been more capriciously or more variously dealt with than the mythology of primitive peoples. It would seem as though each writer upon it brought to its discussion a theory to

which it must accommodate itself, and, the exigencies of the theory demanding it, Mythology suffered like so many other studies which have been prosecuted for a like object.

For want of a scientific and philosophical method, mythology has been interpreted in a wayward and fanciful manner. A perception of the true way in which it should be treated has at length dawned upon us; and those to whom the positive method is familiar see in mythology something more than a heap of contradictory hypotheses, theories, and absurdities, physical or fictitious. As M. Bergmann says—

“Some—not recognizing the religious element in mythology—really see in it nothing but poetry, fiction; a creation, always arbitrary, often pleasant, and sometimes fantastic, of the poetic imagination. As such, they naturally judge it worthy of being studied equally with so many other things of which the knowledge contributes to our amusement; and they grant that it merits our attention, because it is so often spoken of in the books of both the ancient and modern writers.”*

Within the narrow limits of a brief paper like this I can merely indicate, and that slightly,

(1.) Some of the theories by which it has been sought to explain Mythology, and why the explanations have been both inadequate and unsatisfactory; and

(2.) The true method of explaining mythology by endeavouring to ascertain the antecedent spiritual† conditions out of which it has grown. The cause of a moral phenomenon, or its law, can be understood only by inductive regress; and if we would know how it was that man regarded the external world and his relation to it, we must ascertain what were his physical and other conditions when first he found himself here, and in what ways these have acted and re-acted upon him to originate the complex and difficult mythologies which perplex historians in their task of explaining sociological phenomena. Auguste Comte said that no idea can be understood save through its history. The mental and moral geneses of mythology lie deep, and we must go far back in the history of the human race to trace them. What is myth to us was once belief and knowledge, and what is belief and knowledge to us will become legendary indeed to our descendants. They, trained in a rigid scientific method, will find a mental difficulty in realizing that we ever needed the theological and metaphysical entities, so largely used even now, in the more complex sciences. There are fictions in biology and anthropology every whit as absurd as those which are laughed at in fetichism, relatively speaking; and there are *savants* who smile contemptuously at the existence of Mumbo-Jumbo who have mumbo-jumbos of their own, bearing such names as race characteristics, skull forms, force, nerve attractions, nerve repulsions, electricity, ozone, polarity, and similar entities.

* Essay on “Icelandic Poetry.”

† Spiritual is here used in the sense of including the whole of man's nature, intellectual and affective—not a mere part of it.

The mythology which some persons regarded somewhat cavalierly was the only cosmical theory possible to the primitive peoples, and we shall discover its relative fittingness and appropriateness when we study it rightly. The tendency of later theological developments is unquestionably to discredit the earlier fictitious synthesis, and to puff up man with a sense of pride at his spiritual acquisitions. Perhaps when he generally realizes the fact that the later developments could not have been but for the earlier, it may beget in him a better spirit, a more modest mien.

Mythology has usually been interpreted by four different theories.

1. *The Scriptural*.—Jacob Bryant, Sir Wm. Jones, J. Milton, and the Christian Fathers, amongst others, supported this theory.

2. *The Historical*.—Amongst the ancients Livy and Ephorus, and amongst the moderns it may suffice to name Banier, as supporting this theory.

3. *The Allegorical*.—The Sophists, Protagoras and Proclus, in ancient times, and Bacon, Creuzer, and Hermann, amongst others, have supported this theory in modern times.

4. *The Physical*.—Wordsworth, Max Müller, G. W. Cox, T. Keightley, amongst others, and others have supported this theory in modern times.

Of the first, or *scriptural theory*, I will merely say that it is unscientific, and those who use it appear to create more difficulties than they undertake to clear up. So that even as a provisional hypothesis it is worthless. I wish to speak with the modesty which becomes a mere student, and to estimate respectfully the labours of the very eminent and accomplished men who have employed it. It is because, even in such hands, the scriptural theory has failed to explain mythology that I think its scientific value nothing. There are, unfortunately, persons, destitute alike of the piety and the learning of J. Bryant and Sir William Jones, frantically eager to accept a scriptural theory of interpreting mythology, and ready to do violence to the facts of history and science in order to maintain a fictitious synthesis. With such persons Anthropologists have nothing to do; they “have their reward.” A great reputation often overshadows the student and clouds his mental vision, producing amaurosis of the worst kind. It is not heterodoxy to prefer the white, dry light of truth as more precious than the ingenious fancies of both Bryant and Jones. I may add that Bryant, able as he was, was driven to sad shifts in his endeavour to explain mythology in accordance with his arkite theory; in which “Deucalion is only another name for Noah, Hercules for Samson, Arion for Jonah, &c.” Bryant saw the patriarchs in every minute event of the heathen mythology. Moreover,

“Most of the Christian Fathers maintained that the principal deities were in reality devils, and their worship and history had been taught to mankind by the devils themselves. Milton adopted this theory in the first book of his ‘Paradise Lost.’”—Art. Mythology, *English Cyclopædia*.

In fine, the scriptural theory is vitiated by the introduction

of agents of whom nothing is known. These imaginary agents not only do not explain anything, but need explaining themselves.

Secondly. "The *historical theory*, according to which all the personages mentioned in mythology were once real human beings, and the legends and fabulous traditions relating to them are merely the traditions and embellishments of later times. This mode of accounting for the origin of mythology appears to have been in some measure adopted by the Egyptian priests, and was maintained by many of the Greek writers. The Egyptian priests told Herodotus (ii. 144) that their deities originally reigned upon the earth, and that the last who reigned was Orus, the son of Osiris, whom the Greeks called Apollo. An instance of this mode of accounting for the origin of mythology may be seen in the explanation which the Egyptian priests gave to Herodotus of the myth respecting the foundation of the oracles of Dodona and Ammon, according to which the two black pigeons which came from Thebes, in Egypt, and commanded that the oracles should be established, were in reality two Egyptian priestesses who had been carried away from Egypt by the Phœnicians, and brought respectively to Dodona and the Libyan desert. Livy also attempts, in a somewhat similar manner, to give an historical explanation of the myth respecting the suckling of Romulus and Remus by a she-wolf (i. 4)." — Art. Mythology, *English Cyclopædia*.

The historical theory, in as far as it endeavours to give a scientific explanation of mythology, has value in the eyes of Anthropologists, although it may be questioned whether it has yielded important results. It certainly makes unusual demands on the credulity of its adherents by its too frequently explaining events and things in a non-natural way. The theory, also, proves itself to be wonderfully elastic and accommodating; few theories more so. If the facts do not come readily within the theory, the theory itself is stretched till it covers the facts, almost indeed to cracking. And yet, perhaps no theory has indirectly thrown more light upon some of the obscurer parts of mythology, making clear much that was confused and dark. Evidence of this is supplied in the earlier volumes of Grote's "History of Greece," where the ancient myths are discussed in a deeply philosophical spirit. No doubt some of the early heroes of history were real persons, although they are too commonly presented to us in unreal relations, and in a conglomerate of wild and absurd fictions. To disentangle the probable from the improbable, and the possible from the impossible, is often enough a dreary as well as herculean task. It has its advantages, however, in that it shows the spontaneous tendencies of the undisciplined human mind. These tendencies exhibit themselves under similar conditions all over the world. The study of them is replete with interest, and will help to supply answers to many curious questions which engage the prolonged reflection of the historian of humanity.

Thirdly. "The *allegorical theory*, according to which all the myths of the ancients were allegorical and symbolical, and contained some moral, religious, or philosophical truth, which was originally represented under the form of an allegory, but came, in process of time, to be understood literally. This view of mythology was first introduced into Greece by the Sophists, and an example is given of it by Protagoras in his explanation of the myth of Prometheus (*Plato Protag.*). In later times this view of mythology was adopted by the New Platonists in their controversies with the Christians; and their object was to show that the ancient mythology, under the form of allegory, taught all the important duties and doctrines of morality and

religion. Thus the view of mythology given by Homer and Hesiod, which was considered by Plato, in his dialogues on the 'Republic,' as mischievous and dangerous, because it attributed human passions and feelings to the gods, occasioned no difficulty with the later Platonists. There is a work of Proclus, written for the express purpose of proving, in opposition to Plato, that the mythology of Homer and Hesiod contained nothing contrary to sound principles of morality and religion, since the myths of these poets ought to be understood allegorically."—Art. Mythology, *English Cyclopædia*.

I have not read the interpretations of Creuzer and Hermann; but, perhaps, Bacon may be considered their intellectual equal in the interpretation of mythology by the allegorical theory. If he be, the theory itself may be dismissed as inadequate in every way. For proof of this, let any one read Bacon's "Wisdom of the Ancients," and he will be struck by the strained and forced interpretations put upon what he calls the old fables. The fables lose nearly all their antique beauty in his hands. In a few instances, however, Bacon's ingenious theories are well worthy of notice. But each person being free to divine as he thinks fit, there is no recognized standard of interpretation. Allegorical fables may, when the old mythology began to decay, have been added to it, and the whole sought to be explained as a vehicle merely for the conveyance of moral and religious truth; but the student will find it hard indeed to persuade himself that primitive peoples, or that eminent men in primitive times, gravely dedicated themselves to such a task, especially when he reflects out of what stuff the supposed allegories are formed, and how very much hidden is the wisdom supposed to be conveyed in them. Here, as elsewhere, the obvious has been overlooked in the aim of discovering a recondite purpose and meaning; and one is reminded of the profound and erudite German who wrote a learned treatise to show why English policemen are called "bobbies" and "peelers," in which he exhibited much curious philology, and still more curious philosophy. It never occurred to him to ask whether Sir Robert Peel first established the police force. This fact could not be evolved out of his internal consciousness, and was, therefore, worthless. A remark of Bergmann is very *apropos*: "*The ancients, however they may have been governed by their imagination, have yet handled less than modern nations subjects purely fictitious, and their poetry rests much more frequently than ours upon historical data, or at least upon traditions more or less ancient. This truth, however paradoxical it may appear at first, is found authenticated when we compare the poetry of the ancient nations of Europe and Asia with the moderns.*"

Lastly. "The *physical theory*—according to which the elements, air, fire, water, &c., were originally the objects of religious adoration—and the principal deities were personifications of the powers of nature. Thus the ancient mythology of the Hindoos, as developed in the Vedas, personifies the elements and planets, and differs essentially from the hero-worship of later times. The transition from a personification of the elements to the notion of a supernatural being presiding over and governing the different objects of nature was easy and natural; and thus we find, in the Greek and Italian mythology, that the deities presiding over the sun, the moon, the sea, &c., and not the objects themselves, are the subjects of religious adoration. The Greeks, whose imaginations were lively, peopled all nature with invisible beings, and supposed that every object in nature, from the sun and sea to the

smallest fountain and rivulet, was under the care of some particular divinity. Wordsworth, in the fourth book of his 'Excursion,' has beautifully developed this view of Greek mythology."—Art. *Mythology*, *English Cyclopædia*.

The physical theory, because it does *explain* mythology, is the most scientific; and if it be shown to be a law of the human mind, necessitated by the weakness of that mind in its primitive condition, to personify all phenomena, animate and inanimate, many of the difficulties which now attach to the theory will be removed. I do not for one moment assert that all myths are homogeneous, and that one theory will explain all, although I believe it may almost all. M. Bergmann philosophically says—

"Far from being astonished or shocked at the contradictions that will be obvious in the *ensemble* of the myths, we shall, on the contrary, see them with pleasure, knowing that the more contradictions there are in a mythology the more it is a proof that it has not been either contradicted or impeded in its life and its spontaneous development by the spirit of system and theory. . . . Mythology in its fictions always copies real life . . . and the nearer man is to his primitive condition, the less possible is it for him to extricate himself, by thought, from the reality which surrounds him, in order to enter the fabulous world of the imagination."

What of mythology the physical theory does not now explain may be explained by it anon. The hypothesis which interprets and comprehends so much may, ultimately, interpret and comprehend all. The ideal constructions of science, which we estimate so highly, did not, when first broached, nor indeed do they now, harmonize all the facts they tend to embrace; but they comprehended and rendered them systematic in ways no other hypotheses did or could.

This leads me to the second and more important part of my paper, namely, to the true method of explaining mythology by endeavouring to ascertain the antecedent spiritual condition out of which it has grown—for grown it has; it has not been grafted on the religion of primitive peoples. "Mythology has formed itself by degrees." Those who believe that fables, or legends, were concocted to amuse the attention, and stimulate the imagination of barbarous or savage men, have no scientific warrant for such a belief. The facts condemn such a theory, and a careful, not to say reverent study of Fetichism, historic or spontaneous, affords ample materials for showing how mythology was generated and fostered. Comparative mythology shows either that the various mythologies have sprung off and differenced (if you will allow the word) from a primitive mythology; or, that the conception underlying all mythology sprang up in man's mind spontaneously all over the ancient world. In endeavouring to find what this mythology was, great light has been thrown upon it by philology. The efforts of the Grimms, Rask, K. O. Müller, M. Müller, E. Bournouf, Grote, Keightley, Welcker, and others have been crowned with success; and, if we utilize the results of their valuable labours, under the guidance of Comte's law of the evolution of human mind, we shall find mythology is simply a collection of man's beliefs and notions about the external world and his relation to it.

"To present," says Bergmann, "a general view of mythology, in which details should be set aside, and which would at the same time satisfy science, is impossible; first, because true science is as tenacious of details as of generalities; and next, because mythology is not a system of which we can indicate the principal traits and trace only the contours or the lineaments. Mythology, it is necessary to say, cannot be a systematic whole, determined in its plan, and limited in its parts, because it is not a production which has proceeded perfectly from the impulse of a single primitive idea; but it has sprung up successively, and has developed itself by degrees and almost by chance, under the influence of very different ideas; most frequently independent themselves of every determinate system. This is why it does not exclude the contradictions which are the sworn enemies of system, nor prevent the immoderate or disproportionate growth which certain parts of a whole may assume over others."

Auguste Comte has demonstrated, in his "Positive Philosophy," and "Positive Polity," that all man's conceptions pass through the law of the three states, or stages; they are first theological, secondly metaphysical, and thirdly positive. It is in the most primitive condition of the theological stage—the fetichist—lie the root ideas of mythology. Man, in that stage, imagined all objects to be endowed with a life analogous to his own. He could do no other. Some theory of the outside world he must form, and this theory satisfied him, for his intellectual demands were few. The theory explained such facts as pressed disagreeably upon his attention, and these were numerous enough, for he found himself in a world so inimical, that the animal and vegetable kingdoms constantly threatened his very existence, unless he obtained the mastery over either or both of them. I suppose it nearly impossible for us to conceive how numerous his enemies were! Turn where he would he found foes. The elements showed him no pity, the night brought no quiet or repose, while the day renewed his life struggle. Ever had he to be on the alert, for nature in its thousand forms seemed conspiring to his destruction. Hunger and thirst, terrible but beneficent instincts, led him to conquer his native indolence, and roused him to keen activity. Was it strange that his theory of the Cosmos should be a painful one? The beneficence which some persons in these days pretend to discover in the order of nature, who are protected by the products of civilization against her many unkindnesses, could hardly be recognized by primitive man, whose inexperienced wit had constantly to be exercised to stand her rude buffetings. All seasons were alike inclement to him; and he had not learned, what all civilized persons are supposed to have learned and gracefully acknowledged, that what may be unwelcome and unwholesome for himself may, nevertheless, be a good for the earth, which is his home. Constant warfare with his *milieu* was not likely to impress him favourably with that *milieu*, and, as he referred everything to himself, his judgments naturally reflected his feelings. A civilized man in a similar case might think and act differently. However harsh his *milieu*, he might be satisfied that it formed part of the general well-being. Such acquiescence was far enough from primitive man. He submitted to something stronger than himself, because he did not care to be

more miserable than he was. Can we wonder at his mental and moral attitude towards nature, or at his prefigurements of it, as something to be feared and appeased. The bewildered awe with which he came to regard its ordinary phenomena found fitting expression in concrete representations unlovely and forbidding. They imaged his feelings. As yet thought and feeling did not act and re-act upon each other to their mutual enlargement and correction. This process came later; the process was unwelcome because it demanded intellectual activity; and, of all modes of activity, this is the least natural or the least agreeable to man, for it tasked his powers most, while it did not bring to him, like the other activities, a corresponding material advantage. It is no libel to assert that he did not willingly exert his mental powers for a good that he could not foresee; there are a large number of persons, considerably advanced in civilization, of whom the same thing may be said. Bichat said the life of nutrition precedes the life of relation, and primitive man was hardly likely to trouble himself much by thinking of remote contingencies, which awaited himself or others, especially as such contingencies might be foreclosed by a catastrophe abruptly ending his existence. Such catastrophes were commoner then than now, and there were not then, as now, alleviations to the misery of life. In our own time, little value is set upon human life in fetichistic communities, such as those of the West Coast of Africa; and the fetich worshipper yields it up not unwillingly at the bidding of his chief or king. His pleasures are mainly sensuous, and these satiate him. Supply his few necessities, and existence becomes tolerable. Like his civilized counterpart, he is not capable of "much study." Indeed, long-sustained reflection is possible to but few minds. An Aristotle, a Newton, a Descartes, or a Comte may live, move, and have their being in serene heights where ordinary thinkers could not. Their "souls are like stars, and dwell apart."

The reflective powers of man are those latest and least developed. There may come a time when the intellectual powers will be stronger than they now are, and capable of sustaining not only longer but higher flights. When we become so capable, we shall also be familiar with a moral discipline to which we are now, comparatively speaking, strangers. As animality becomes dominated by humanity, egoism by altruism, this fine possibility tends to grow into near probability. That this is no vain hope the history of the human race assures us; for great as may be its victories over the external world, those victories have been nobler which it has gained over itself.

Bearing in mind what has been said of man's outlook in fetichistic times, we shall apprehend why so many of the genii, demons, or gods of the mythological pantheon are representations of beings who excite terror, awe, and fear, rather than their opposites. Fetichism explains why it is that the world is so peopled with fairies—uncanny folk ready to do man harm, unless he exercise all possible caution in his relation with them, and never speaks of them unless at imminent peril, save as the "good people." The folk-lore of all

countries bears testimony to this widespread feeling, and it is as old as widespread.

In Hindoo mythology, perhaps the oldest in the world, and that from which all the other mythologies may possibly be derived, every natural object is personified. The Hindoo Pantheon contains, Ward says,* 330,000,000 of divinities, and these divinities, like the 30,000 divinities of the Greek Pantheon, are simply Fetiches transposed. Not only are gods and goddesses of the sun, moon, sky, planets, hades, love, death, and of all the unseen powers and forces worshipped under every possible aspect or relation; not only are the extraordinary phenomena of the various seasons, as well as the ordinary phenomena of daily life—nature's unusual as well as usual aspects—personified and worshipped; but to these have been added the worship of beasts, birds, trees, rivers, fish, books, stones, wood, and everything, in fine, which has helped or hindered man. The gentler and nobler virtues were rarely personified, being almost unknown to primitive man, while the vices are over-represented. Even in Greece, *Elios*, the personification of pity and mercy, was worshipped in Athens only—a sadly suggestive fact. The personifying spirit could hardly be carried to greater lengths than by the Hindoos, who placed a god or genius in every separate limb and function of the human organism.

A remarkable modern instance of the personifying tendency of the human mind has been furnished by the Hindoos in their worship of *Ola-bebee*.†

Man has paid, and still pays, homage to both the powers which help and the powers which hinder; most homage perhaps to those which hinder him, that he may appease them. Many things to which praise and thank-offerings are now made were once regarded with very different feelings; for a knowledge of objects has reacted on man's subjective modes of viewing them, as it constantly does upon ours. This phase of moral growth is not peculiar to Fetichism, and the latest monotheistic conceptions of its divinity are immensely more humane, and therefore less divine, than its earlier ones. When we remember how slowly the mind of man opens to abstract ideas, and how difficult (according to the observation in the *Mahabarata*) an invisible path is to corporeal beings, we shall understand why it was necessary for man to make concrete representations of nature under its infinitely varied aspects.

In the infancy of his existence man realized, as we cannot do, that each animal, tree, plant, stream, river, wind, zephyr, cloud, had a distinct personality of its own, and exhibited at different times, like himself, differing feelings and passions. He rejoiced in their friendly contact, and felt the full force of their unfriendly contact

* Ward, on "The Religion, Mythology, and History of the Bindoos." Third Edition, 1817.

† This goddess has been created within these four years. She is indebted for her origin to the prevalence of the cholera morbus.—*Vide* "Essays Relative to the Habits, Character, &c., of the Hindoos," published in 1823.

when they marred his handiwork in their passion, as he in his ungoverned passions had frequently marred it. He had clearer, harder conceptions of their personality than we have, for he knew nothing of the laws of nature, and was slowly acquiring, under every possible disadvantage, knowledge which enabled us to formulate such laws. It was in fetichist times, as I have said elsewhere, that the uses of fire, clothes, and agriculture were discovered, and to those times we owe, further, the invention of speech, and the bringing of families into relationships which form the base of any government or civilization worthy of the name. Language bears on it an ineffaceable stamp of its fetichist origin. I do not allude so much to the numerous words which imitate sounds to convey meaning, but to that universal mark, that every object, natural or artificial, is spoken of as either of the masculine or feminine gender. The neuter gender appears to have been a late innovation.

Our modern science and philosophy still bear many traces of their fetichist origin. *Savants* cannot get rid of fictions, or disembarass themselves of the tendency towards personification. "Their speech bewrayeth them," let the protest that they are none of its disciples be ever so loudly or scornfully expressed. Our language is saturated with Fetichism. We cannot frame a poem or a scientific theory—both of which are subjective creations merely—into which it does not enter. The dawning mind of a child, as Grote observed, regards all objects as fetiches. Children treat their dolls, toys, carts, and playthings as living things, punishing them when they are "naughty," caressing them when they are good. Should they hurt themselves against a chair, a stair, or a floor, straightway the chair, stair, and floor are beaten for being naughty in hurting "baby," and the children are satisfied. Perhaps the man who smiles at the children for so feeling and acting may discover a similar disposition of mind when annoyed at any obstacle which may come in his way. He who kicked the bicycle he could not ride, is not much unlike the African who angrily beats his wooden god for not acceding to his wishes and prayers.

How impossible it is for a child to realize the abstraction Death has been exemplified in Wordsworth's lovely poem, "We are Seven," in which a child still speaks of her brothers and sisters as of an unbroken family, although two of them are dead; for do not their graves remain to her? The personification of abstractions is constantly witnessed in science, and it both helps and hinders its advance. It helps while the abstractions are remembered to be abstractions, and hinders when this is forgotten and the abstractions are treated as entities. It would seem as if man's intellectual weakness was such that he could not long sustain himself in an atmosphere of pure abstraction, and that he needs must lay hold of some concrete to steady himself, or make a concrete of some abstraction to focus his thoughts.

Here, for the present, I will conclude what I have to say. I hope

at an early date, by your permission, to resume the consideration of the subject, and to show, perhaps with some detail, how largely Fetichism enters into the sacred books of the oldest and most celebrated nations of antiquity. To do this adequately demands further study ; but I imagine the subject well repays all the attention devoted to it.

DISCUSSION.

The thanks of the Meeting having been voted to the authors, Professor LEITNER, Ph.D., said that there was no doubt that Fetichism, as understood by Dr. Kaines, entered very largely into all our conceptions, and that, as long as we were human beings, he supposed that it must do so ; still he maintained that it was wise to go to the physical basis of our notions of right and wrong, because the ideas of right and wrong so derived, but often misapplied, formed the real foundation of the speculations of theologians and of the supernatural—whatever “the supernatural” might mean. It was true that in one sense the Hindoos had 300,000,000 deities, but really the basis of Hindoo mythology was the worship of power. The Hindoo would worship every development of strength in any one of its details. He was surprised to hear Mr. Tagore speak of a literal devil as forming part of Hindoo mythology, and supposed he alluded to Shiva ; but, however destructive in some of his manifestations, Shiva was as beneficent, in other respects, as any of the other deities. To the Hindoos the idea of a bad spirit was in no way revolting ; they simply worshipped him because of his possession of power ; in fact, if their ideas were put in philosophical language, and the names of the gods left out, their teachings would do for leading articles in any of our present English newspapers. If our rule in India should not be successful, but prove a gigantic failure, the Hindoos would have no objection whatever to erect a statue to the power of incompetence, and to fall down and worship it. Referring to the belief in the Yatch in the Dard country, they were, it is true, bad spirits, but as long as they were treated well they acted like good spirits, and good spirits, if angered, at once began to act like bad ones. Our ideas of good and evil spirits will always depend upon our state of civilization, and as we progress in intelligence our deities will become milder. The Canticles of Solomon tell how he took away a shepherdess from her shepherd and put her in his seraglio ; but she was so faithful in the midst of these temptations that at last he sent her back again to her shepherd. The Canticles have in subsequent times had a mystical meaning put to them, and now they are made to symbolize the union between Christ and His Church. To one who reads them as they were written, they look like a love story, and nothing more ; whilst to those who survey them from a higher standpoint they do not look like a love story, the ideas of the readers having advanced with the progress of civilization. If the Muhammedans advance, they will

be able to find in the Koran a great deal against their present voluptuous paradise, and to warrant them in introducing in place thereof something like the hallelujah singing to which we look forward. As long as civilized nations are content with an imperfect knowledge of the Bible and of the Hebrew language, so long will the present interpretations be accepted. The last time he addressed the society he had been betrayed into making several impatient remarks about Spiritualists, but since then he had come to the conclusion that he had been mistaken in so doing. It was a natural feeling to him at the time which caused him to speak as he did, but, from enquiries he had since made, it was quite certain that many sensible men and women believed in the matter, and he thought that the society should devote its attention to the alleged facts. There was scarcely anybody who had not had experiences like those narrated by Spiritualists. In many parts of India there are people who can do things which the English cannot do, but, directly the method by which they are done is discovered, they will cease to be supernatural, and become natural. For instance, there were Fakirs who hybernated, as attested by evidence given by many living men. At first sight these things look ridiculous, but when put into a scientific form they are regarded in a different light, and, if it were known that a German professor was doing the same thing by scientific means, the public would but consider it to be an interesting experiment. In forming opinions, we should study our own lines of thought and the bias given by the grooves in which we have been educated, and we should do all we could never to worship a fetich, whether in a scientific or a religious guise.

Mr. CARMICHAEL said that what struck him as one of the most singular points to which Mr. Wake's paper ought to draw attention was the alleged visible apparition of the spirit of living men in some of the cases adduced by Mr. Wake. In regard to Dr. Kaines's paper, Mr. Carmichael thought it would be unfair to the author to criticise his views on the interpretation of mythology, when, as yet, only an introductory essay was before the society; but if he rightly understood Dr. Kaines's rendering of Comte's view of primitive man, he considered that it presented far too imaginative a picture to be accepted in a scientific investigation; and, moreover, that it was contradicted by all the evidence brought before us, both from the New World and the Old, as to the mastery of primitive man over the animal life of his day. Whether search be made in the bone caves of Périgord, or the Drift of Mississippi, there is equal proof (of which some interesting details may be read in the *North American Review*, January, 1874, on the "Antiquity of the Red Race") that primitive man had the means of subduing the animal kingdom according to his needs, and of defending himself from those members of it that might be called his "enemies." This fact was, in Mr. Carmichael's opinion, one which required to be carefully borne in mind by Anthropologists, lest they should fall into the serious error of looking at primitive man (as he thought Comte

seemed to have done) through the spectacles of the nineteenth century, which he could not but hold would be fatal to the true progress of the scientific study of man. Mr. Carmichael also observed that he thought Dr. Kaines would find that Monotheism was the theological characteristic of the earliest Vedic writings, and not a comparatively late development, as he appeared to consider it.

Mr. LEWIS would like to know, in respect to the mediums, from whom spirits were seen to arise (as stated by Mr. Wake). whether they were sensible or insensible at the time? He did not think Mr. Wake's paper altogether got rid of the spirits, because, if the circumstance he had alluded to had really occurred, the medium had either been able to divide himself in two, or was under some unexplained and probably spiritual influence. He hoped they should have something further from Mr. Tagore. He could not agree with Dr. Kaines, that race characteristics were all a myth; and he thought mythology must be explained not by any one, but by all the methods he had criticised, and that we must get more material from Babylon and Egypt before we could say much about the subject at all. If, as Dr. Kaines said, civilized men would submit to unpleasant surroundings, if necessary for the general well-being, he feared very few people were at present civilized.

Major S. R. J. OWEN said that he was in India throughout the Indian mutiny, and was in India at the time when the Fakir, who had been mentioned by Dr. Leitner, was buried at Lahore. In the year 1844 he met several officers who came from that part of the country, and it was a matter of common talk with them, as an accepted and undeniable fact, that the Fakir had been buried for a long time, and afterwards revived as stated. One man was said to have been put into a box, which was chained to the ceiling, and troops were placed to watch it for several weeks, but the man afterwards recovered consciousness. These things were spoken of by those who had seen them as unquestionable facts. The Fakir had a wife, who helped to restore him; he was able to throw himself into a kind of trance, in which his tongue turned back into his mouth. Sometimes he was buried for weeks together. He (Major Owen) had not seen hands or parts of the human body coming from a medium, but, in the presence of a medium, he had seen a hand travelling all round his room, and placing itself upon his neck. The hand was luminous. He believed that it appeared under test conditions, and it occurred in his own house. He must acknowledge that he was a medium himself, although probably his saying so would bring down an avalanche on his head. The facts of Spiritualism were true, whatever their explanation might be. The testimony as to his mediumship did not rest entirely upon himself, for many of those who sat with him in his circle had also become developed into mediums, and obtained manifestations on their own account. He had seen this in the case of scores of his own friends and of some members of his family. He could not possibly suppose that all these people had been playing him some dreadful tricks.

Mr. H. T. MARCHANT said that about twelve years ago there was an Oxford student who had the power of disassociating his body from his soul whenever he pleased, and he was under the impression that, if he remained absent long enough to allow his body to get cold, he could never return to it. Once he did let it get cold, and he was not able to return ; in short, he was dead. There was one part of Spiritualism which might be studied in connection with the theory of wave thoughts ; he referred to the many cases in which persons who were just passing away from this life appeared to their friends at a distance. The cases were so numerous that he thought the phenomenon should be accepted as a fact ; he thoroughly believed that the power existed.

Dr. C. CARTER BLAKE said there was one significant fact in connection with the burial of the Fakir ; it was on record that before he was buried a lozenge was placed in his mouth, and possibly through this lozenge some sustenance was conveyed. He should like to know whether any statements about the burial of the Fakir were recorded at the time, or whether the officers told the tale only on their return to England. In fact, some of the tests which Mr. Harris had suggested in a former paper might be applied in this case.

Mr. GRAZEBROOK said that the case of the Fakir was not so very uncommon. Fasting girls had been known at various times in England ; they had lived in a state of trance with little or no food for a considerable period. He did not believe in Spiritualism himself, but he was in a state of mind to hear anything for or against it. A surgeon, who was a friend of his, told him that he went to a *séance* an unbeliever in the whole thing, but the phenomena were so extraordinary that he could not but accept the idea that they were supernatural. A low voice came and whispered in his ear, and the voice was that of his wife, who was dead. She told him something that nobody but himself knew. When a gentleman—a friend of his own—who had no object in telling an untruth, made such a statement to him, it would be arrogant on his part to say that it was not true, or that his friend was deluded. Science ought to attend to the matter, and learn what was at the bottom of it all. It should decide whether these things took place or not. He thought the spirits did not always do such foolish things as they were popularly supposed to do, but he should be loth to believe the statement that the body of a medium had been seen to be elongated.

Major OWEN : Well, I must say that I have seen it myself.

The PRESIDENT said the Shamanism of the Greenlanders might be compared with the oracle at Delphi. The answers were dark and intricate, and two voices were heard ; that is to say, ventriloquism was practised. According to the author of the paper, the Zulus, when a child has convulsions, sacrifice a goat, and pour its gall over the child. Some of the African people have remedies for diseases not known to Europeans. Thus, the natives of Guinea cure rheumatism (and, as some say, hypochondriasis and consumption) by

what the French term *insufflation*. At all events, if in goats' gall, as in ox gall, there are seven-eighths of water, its use *might* be harmless. Without doubt, Spiritualism is of but recent introduction in Europe. It would seem, however, from a Persian MS. of Téwekkul-Bég (a disciple of Molla Shah, Prince of Cashmir), of the 1077th year of the Hejira, translated by M. A. Kremer, that Spiritualism was practised in the East prior to the latter date. With respect to the sorcery of the Turanian doctors, the President presumed Mr. Wake referred to the so-called Scythians or Tātārs who emigrated from Scythia, *i.e.*, Turan, and who afterwards occupied a district on the southern borders of the Caspian. According to the best authorities, by the term "possession of devils" was understood the phenomena of certain diseases, especially insanity, epilepsy, and hypochondria. Josephus and also the Jewish physicians mention certain medicines which are useful for demoniacs; and the so-called demoniacs in other countries would appear to have laboured under precisely the same symptoms; and they are stated to have been cured by the use of medicines. Again, the superhuman strength of "persons possessed" is common in insanity. In relation to the other questions discussed, the President said that there is no doubt that the Brahmins do worship not only birds, but also fish. They worship the kite, wagtail, owl, peacock, and goose; they worship all the fish of some rivers, and particular fish are the object of especial worship. In like manner, the Egyptians worshipped the ibis and the hawk, and also the Nile fish called *latus*; the latter because it is said to feed on serpents. Idolatry is of all ages and of all climes. One worships a stone or a piece of wood, another an image, a third gold, a fourth an unwashed constituency, and the worship of one is not much more reasonable than that of another. As a rule, when the Greeks raised altars to a particular vice, they did so to show that such vice should be shunned. The Lacedæmonians erected a temple to Fear. They did not wish to be endowed with fear, but rather the reverse.

Dr. KAINES, in replying to Mr. Carmichael's criticism, said he did not quite understand what Mr. Carmichael meant by saying that the picture presented of primitive man was "far too imaginative to be accepted in a scientific investigation." All pictures of fetichist times are bound to be imaginative in the absence of any genuine history of them. A picture may be largely imaginative and still be true. All scientific constructions are, to an extent, imaginative. They differ from other constructions in being founded on fact. Dr. Kaines's view of primitive man can hardly be said to be "contradicted by all the evidence brought before us, both from the New World and from the Old, as to his mastery over the animal life of his day," since this is the point that Dr. Kaines has endeavoured to prove, and any search that may be made in the bone caves of Périgord or the Drift of the Mississippi (quoted by Mr. Carmichael) will help to sustain his view. Comte's masterly chapter on Fetichism in the "*Philosophie Positive*," Tome i., can hardly have been read by Mr. Carmichael, or he would not speak of Comte's "error of looking

at primitive man through the spectacles of the nineteenth century ;" and no real student of Comte's works would hold that any of them were likely to be "fatal to the true progress of the scientific study of man." With reference to Mr. Carmichael's opinion, that Monotheism is a characteristic of the earliest Vedic writings, Dr. Kaines is at a loss to know how such an opinion could be formed ; those writings, as far as he has examined them, are permeated through and through with Fetichism. It is in the later and post-Vedic writings (in the Upanishads, &c.) that monotheistic tendencies are observable. This opinion is supported by the eminent Sanscrit scholars, Hayman Wilson, and M. Langlois, as Dr. Kaines will show in another paper, when he will give an analysis of the Hymns of the Rig Veda, most of which are addressed to Agni and Indra, the deities or personifications of the fire and of the firmament. When writers speak of the monotheistical system or theism of the Vedas, they speak of that which they have not proved to exist.

Mr. WAKE, in reply, said although he was not present when his paper was read, he might be allowed to make a few observations with reference to what was said on it. The only criticism advanced at the meeting which required a reply would seem to be Mr. Lewis's statement that spirit agency would still be necessary to account for the appearance of "doubles." But if man be really a dual being, it can well be supposed that, under proper conditions (whatever those conditions may be), the individual may become separated into himself and his "double" without the aid of spirit agency. There is nothing improbable, however, in the supposition that the so-called "double," when at death finally and completely separated from its outer material covering, may continue to act in the production of some of the phenomena of Spiritualism. Nevertheless, the more the subject is studied the more evident does it become that most of those phenomena are dependent solely on the medium himself. The evidence of Mrs. Everitt, given in the *Spiritualist* of months back, seems to furnish the key to all such phenomena as that of the appearance of Katie King. Mrs. Everitt stated that, when entranced, she had seen her own body in a chair, and been struck with the circumstance ; and she added, that in the case of such a temporary separation between the spirit and the body, these are united by a magnetic cord. We have only to imagine that when Mrs. Everitt was entranced, her spirit became visible to the persons at the *séance*, and we should have the exact phenomenon produced at Miss Cook's *séances*. Moreover, the fact of the so-called spirit and the body of the medium being visible at the same time, which has been thought to prove that they are perfectly distinct persons, thus loses its apparent significance. If Mrs. Everitt's spirit and the body which she saw belonged to the same person, so may the spirit seen at Miss Cook's *séances* belong to Miss Cook herself ; an inference which is supported by the fact, that when the former disappeared, it was absorbed into Miss Cook's own organism. The magnetic cord which Mrs. Everitt referred to as uniting the spirit and body while these

are temporarily separated exists also, so far as can be judged from the published reports of the *séances* of Katie and Miss Cook. While fully believing that the explanation offered in his paper is applicable to many of the phenomena of Spiritualism, some other explanation must, at least according to our present knowledge, be sought for the remainder. It may or may not be natural, as distinguished from the popular notion of the "supernatural." The phenomena brought to the notice of the society will afford ample scope for scientific enquiry for a long time to come, and they are well deserving of study on the part of Anthropologists.

ORDINARY MEETING,

Held at 37, Arundel Street, Strand, on Tuesday, 7th April, 1875.

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

Elections announced :—Fellows, Mr. Serjeant COX, T. LANE, Esq.

Presents announced :—For the Library, "Proceedings of Anthropological Society of Paris" (current number), from the Society.

The following paper was read :—

ON THE PREHISTORIC ANTIQUITIES OF THE CAUCASUS.

By DR. ISIDORE KOPERNICKI.

DURING the last ten years, since the definitive conquest of the Caucasus, this country has been the object of vast and energetic scientific researches, followed out with success by the most competent and zealous investigators. Many volumes of Russian scientific publications upon the Caucasus,* which I have received from that country, give me the satisfaction to find that besides very important

* 1. "Comptes-rendus (*Izvestia*) of the Caucasian Department of the Imperial Geographical Society of Russia." Edited by D. J. Kowalewski. Tom. i. Tiflis, 1872-73. 2. "Collection (*Sbornik*) of Notions on the Caucasus." Edited by N. Seidlitz, Chief Rédacteur of the Statistical Committee of the Caucasus. Tom. i. Tiflis, 1871. 3. "Collection of Notions upon the Mountaineers of the Caucasus" (*Sbornik sviedenii o Kavkazskikh gorcach*). Published by the Administration of the country. Tiflis. Tom. ii., 1869, and Tom. vii., 1873. 4. "A Collection of Different Memoirs and Articles." Published in the Almanack and the Journals of the Caucasus during the four last years.

works upon the geography and natural history of the Caucasus, the anthropology of that famous *officina gentium* has been seriously cultivated, and with an activity worthy of praise. Until the time arrives which shall give me a complete collection of these important publications, and the means of confronting and conveniently utilizing the numerous fragmentary materials which they contain upon the anthropology of the indigenous peoples of the Caucasus, I propose to indicate here some new data upon the anthropological archæology of this country, found in the volumes I have in hand.

First, as to what concerns the history of the primitive times of the Caucasus, we may expect important discoveries from the explorations of the *caverns* which are in progress. These caverns are very numerous, according to M. Bayern, a zealous man of learning, who devotes himself with so much success to the archæology of the Caucasus.

Besides the numerous caverns already pointed out by Dubois de Montpéreux, which are met with in the different ravines of the basin of the Arax and of the Rion, many others are known in the calcareous rocks of the left bank of the Kur and its tributaries, the Aragwa and Ananour, and particularly in the basin of the Jora. The fact that there are parts specially abounding in caverns, very numerous and near to each other, leads M. Bayern to think that these caverns probably served as habitations for the colonies of ancient miners of metals, like the analogous caverns which exist in Armenia, in the neighbourhood of the salt springs of Kulp, near the Turkish frontier.

The northern declination of the chain of the Caucasus appears to be much less abounding in caverns formerly inhabited. They are, nevertheless, met with in the heights of Kasbek, in the gorges of the Terek and its affluents—Ardon, Baksan, and Argun—and, further towards the east, in Daghestan, along the two Kara-Koison. In this last province, the town of Gherghebil, now in ruins, must have been primitively a town of caverns, being built afterwards upon the surface of the soil.

In descending lower down towards the plains of the provinces of Terek and Kuban, we find no more caverns, except in the neighbourhood of the thermal springs of Piatigorsk and of Kislovodsk, where there exist caverns, in which are found the teeth of horses and fragments of pottery, which prove that these caverns were formerly inhabited.

Lastly, along the eastern shores of the Black Sea caverns are met with, which serve as refuges for the mountaineers expelled into Turkey.

The Caucasus possesses upon the whole a world of caverns, of which eight only were explored, in 1871, by M. Yeritzoff. In these caverns, which are near the villages of Akhpat, Sanaguine, and Varnak, in the district of Tiflis, were discovered a complete library of very ancient Armenian manuscripts, written sometimes on parch-

ment and sometimes on China paper. This fact gives support to the opinion of M. Bayern above mentioned, that most of the caverns of the Caucasus were already inhabited in the times nearest to our era. It appears, nevertheless, to be certain that the systematic and complete exploration of these caverns may lead to the discovery of proofs of the existence of men at the primitive epoch. In support of this conjecture, we find that, in proximity to such caverns, Dr. Timonovitch has met with, at Satji, a village in the district of Trialet, a saw of unpolished flint, 96 millimètres long, 27 millimètres broad, and 10 millimètres thick, furnished with 15 teeth, 3 millimètres long, and blunted by use. M. Radde, moreover, has met with hammers of diorite near to Kulp, between the mountains of Ararat and Alagös.

The existence of *lacustrine habitations* in the Caucasus is not yet positively demonstrated. M. Bayern appears, nevertheless, to have remarked traces of them in 1849 upon Lake Gotcha, in the environs of Novo Bayazed. It was a double row of piles, which extended from the edge of the lake towards the deeper water. The existence of these rows of piles in a complete desert is quite opposed to the idea that they might have been a construction of modern fishermen. M. Bayern was also assured that on the Lake Toporovan, at a distance of 560 feet from its edge, there exists a sort of Crannoge, rising above the level of the lake about 3 feet, about 700 feet long, and from 105 to 110 feet broad, which contains piles in many places.

In certain environs of the Caucasus, and principally near the Arax, under the great Ararat, there exist heaps more or less voluminous, which are protected by masses of cinders and charcoal, mixed with fragments of bone and of pottery, with remains of shells and of different tools, which recal the Danish Kjökken-möddings. Analogous masses, but still more remarkable, exist on the east of the Strait of Yenikalé, where they are found buried at a depth of seventeen to twenty feet in layers of vegetable formation formed by *zostera*. The presence of these heaps of earth precisely in those places in which, according to M. Bayern, lakes existed which have long disappeared, proves that these lakes must have been inhabited like the Swiss lakes; and that the serious search for the existence of lake habitations in the Caucasus would not be unproductive.

Tumuli are wholly unknown beyond the Caucasus, except in the Steppe of Mugan, at the mouth of the Kur. On this side of the chain of the Caucasus, on the contrary, they are very frequent in the province of Kuban, along the shore of the sea of Azof, between the marshes of Beysong and Kipril, and particularly in the environs of Temriouk. The neighbouring inhabitants dig in them frequently to their foundations, and obtain from them different objects and ornaments of gold, products of Greek industry of the last period of the kingdom of the Bosphorus. In the neighbourhood of Ekaterinodar there was found, among other things, a vessel of silver,

similar to the Egyptian, and a hoop of silver, like those which are placed upon objects proceeding from the Egyptian catacombs.

The *funereal constructions of stone* discovered in Georgia are the largest and most remarkable fruit of the recent archæological researches in the Caucasus. Some years ago there was discovered, at Tiflis, a sepulchral stone with inscriptions in Greek, which testified to the relations of Georgia, in ancient times, with the Roman empire in the East. In the summer of 1871, the construction of a new road between Tiflis and Mzket directed attention to a discovery much more ancient. These were the prehistoric sepultures of the Iberians, the systematic exploration of which was accomplished with brilliant success by M. Bayern. Upon a level of about twenty kilometres in extent he discovered an entire necropolis, seventy tombs of which were explored in 1871, and 210 in the following year, without reckoning the immense number—calculated by M. Bayern at 800—which were entirely destroyed by the workmen upon the road.

These tombs were found more or less deep under the soil, and, in the greater number of cases, were constructed of five large flags of sandstone, and formed regular quadrangular chambers, with vertical walls, and not divergent at their upper part like those of the ancient Cimmerian tombs at Kertch. Some, in defect of stone, had their walls constructed of squares of brick (*later tetradoros et pentadoros*). The excellent memoir, published by M. Bayern in the "*Zeitschrift für Ethnologie*," removes the necessity for our enumeration of the objects met with in these tombs, and for the reproduction of his opinions upon this necropolis. As for what concerns the skeletons that were deposited in this necropolis, everything leads to the conclusion that, in a great number of cases, the dead bodies were placed with their backs to the walls in a sitting posture. As to the form of the skulls, we find in the Russian notice of M. Bayern the following observation, which is much modified in the long memoir published afterwards: "The crania, which are badly preserved, belong to the dolichocephalic type, and bear evident signs of the artificial deformation they have undergone by means of bands, as among the Georgians of the present day."

Veritable *megalithic monuments* are found about the surface of the soil, in the country of the exiled Chapsongs, on the eastern side of the Black Sea, between Djuba and Pshad. The first recital of the existence of these dolmens was made thirty years ago by an English writer, Mr. James Stand Bell. M. Bayern had observed them in his turn in 1865, and afterwards, in 1870, he visited, upon the shore of the river Tsongtsonk, between Ghelendjik and Pshad, a grand dolmen, constructed of five pieces of cut sandstone. The lateral walls of this monument were perfectly vertical, and their anterior and posterior edges chiselled for the reception of the walls of the front and the back. That of the front was pierced with a round hole, of the size of the head of an adult man. The cover stone was much larger than the dimensions of the chamber, so that it pro-

jected outwards from the walls, and gave the monument the aspect of being a *stone table*.

Further on, in going to Djuba, in the ravine of the river Pshad, four dolmens were found, one of which was described by Bell. They were distinguished from the preceding by their lateral walls being convergent upwards. In the same ravine there existed another quite peculiar dolmen, constructed of two pieces of stone. The inferior, which is a sort of stone coffin hollowed in an erratic block cut vertically on its front and back faces, has, at the front, a round opening, like all the other dolmens of the Caucasus. The other piece, which forms the roof for the first, is an enormous slab of sandstone, a foot and a half thick.

Lastly, in the ravine of the river Djuba, M. Bayern has found another dolmen, with two chambers. It was open, and most of the rest had been devastated by the Chapsongs, who had formed a shelter with it for their sentinels.

In mentioning the analogous megalithic monuments dispersed in the different gorges of the north-western extremity of the chain of the Caucasus, M. Bayern makes the important remark that these dolmens are found along the principal defiles which the people would have availed themselves of in their migration into Europe.

In relation to these funereal constructions of Georgia, and of the country of the Chapsongs (the only architectonic difference of which consists in this, that the first are found beneath, and the last above the soil), it remains to be mentioned, according to M. Bayern, that ancient analogous constructions are found in other provinces of the Caucasus. Thus, upon the northern slope of the Caucasian Mountains, among the Kistines, who dwell upon the banks of the Fortung, are found analogous monuments above the soil, constructed of great rolled stones or of bricks, and having a quadrangular opening in their front walls. The exterior masonry shows that they are evidently of a more modern date than the funereal constructions of Georgia. Near the sources of the Argun there are cubical monuments of ten to twelve feet on each side, covered with a brick roof. They are distinguished from the preceding by this, that, in place of a frontal opening, they have a small low door, and that they are surrounded by an enclosure formed of great stones. In the interior are found rays of three feet in width, and at a distance of three feet from one another, which led M. Bayern to conclude that they were family tombs.

Lastly, there is another fact sufficiently important to be noted with respect to these funereal constructions; it is that, with certain modifications, a very analogous manner of sepulture is continued to the present day in Ossetia, in Dwaletia, and other districts. The Ossetians of the present day inter their dead in a half-sitting posture, and place at their sides a cruse of wine, or other liquor prepared during the funeral, a pipe—if the deceased was a smoker—and a small mirror upon his knees. The first anniversary day of the funeral

(named by them "the day of the heart") the relatives of the deceased, after taking away the earth which covered the tomb, uncover the opening left in the front of the roof, allow the light of the day to enter, and cast in a living trout and the heart of a sheep; after which the tomb is closed for ever. This funeral custom of the Ossetians acquires a particular anthropological signification, when we attach it to this remarkable fact, that in the ancient Iberian tombs of Mzkheth, M. Bayern often found the heads of fishes, which were thrown in as symbolical offerings to the souls of the defunct.

DISCUSSION.

The thanks of the Meeting having been voted to the Author, and to Dr. J. Barnard Davis, by whom the paper was translated for the Society,

Mr. J. JEREMIAH, Jun., said: The paper is very valuable as a contribution to our, at present, very scanty knowledge of the prehistoric archæology of that interesting country, the Caucasus. One point of peculiar interest is the occurrence of *holed* dolmens in Circassia. Now there is much importance attached to this by the advocates of the hypothesis of Dr. Fergusson, viz., that that peculiarity sufficiently proves the common origin of the dolmens, and the migration of the so-called dolmen builders of Central Europe, and, in fact, of the whole of Europe, from the high lands of Central Asia. For instance, the holed stone at Stennis, the holed slabs at Rodmarton, Kerlescant, Trie, and Grandmont, and the double-holed dolmen at Plas Newydd, were built by the same race of people as that which erected the holed dolmens in Circassia; and, again, these builders were the descendants of the dolmen builders of Northern and North-Eastern India! We must remember that the dolmen, cromlech, gallery-sepulchres of Scandinavia were, most probably, originally the dwellings, or simulated dwellings of the living, and were afterwards used for the interment of the dead, as a Circassian tomb resembles a Circassian house, and the tombs of the Tartars in Kasan resemble, on a small scale, their dwellings. If, then, my idea be the true one, it is easy to conceive the probability—in fact, the greatest possibility is less than the probability—of a concurrent development of the idea of the soul, or supposed spirit of life, leaving the body upon death taking place, with the development of the mode of sepulture. The house being converted into a tomb, it would become only necessary to retain a miniature door, and not one of the natural or usual size. Souls, like bodies, must have a means of exit, hence the hole was retained, and used also for feeding the dead. The numerous superstitions attached to holed stones, such as passing the hands through, and shaking them, to complete an oath, and passing babies through larger ones to render them lucky, &c., are after-growths, and quite distinct from their original meaning. As to the origin of dolmens in Circassia, I am of

opinion that, as their occurrence is invariably on plains and open country, the primitive Circassians were cave dwellers; but, having been driven out by invading hordes, took to the plains, and adapted themselves to the surrounding circumstances by using what materials came to hand, and thus erected copies of their former habitations and dolmens. Nilsson advocates this view. Fergusson, however, so strongly feels the importance of the dolmen builders' hypothesis that he can trace this migration through Bactria, the country upon the Oxus, the Caspian, Circassia, Sea of Azof, and thus by the Dnieper, and up that river and down the banks of the Niemen, or Vistula, to the Baltic. All I can say is, I cannot see the mode by which he arrives at so astonishing a conclusion. Archæology is yet young, and it behoves us to be very chary of the fanciful hypothesis likely to overtake us. I trust Dr. Kopernicki will be prevailed upon to continue his remarks on that extremely interesting country.

After some remarks by Mr. CARMICHAEL and Dr. CARTER BLAKE,

The PRESIDENT said, there is probably no country of so small extent inhabited by so many different nations, and so much worthy of the attention of the anthropologist and antiquary as the Caucasus and its neighbourhood. To judge of the number of peoples or tribes located in this part of the globe, Strabo informs us that in his time at least seventy languages were spoken there. Strabo, doubtless, meant dialects, not languages; nevertheless, at the present day, some seven or eight distinct languages are spoken in the Caucasus. Some of these have affinity with the Persian, the Median, the Pehlvi, or Armenian; others resemble the Turkish, or Finnic-Tâtâr, whilst the language spoken by the Ossetes, or Irones, is said to contain German words; but this supposition may have arisen either because both languages have words from the Sanscrit, or from some derivative language, or from the Gothic irruption into Asia Minor, referred to in his (the President's) first address. The language of the Ossetes is also indebted for some words to the Celtic-Scythic. Among other words are *dou*, for water. The religion of the peoples would seem to be a compound of Paganism, Christianity, Islamism, and Judaism. Among other interesting ruins and remains are those of Mshet, at the confluence of the Kur. The city is said to have been founded by Mshet, grandson of Noah, to have been 30 versts in circumference, and defended by 80,000 warriors. Caucasus is also the land of Prometheus, and of Gog and Magog. Alexander enclosed these turtle doves within the mountains of Caucasus, to prevent them laying waste the land. Then, again, traditions of Amazons are current in many parts, and in the secluded valley of the Galga, near Assai, is shown a cavern which served as a retreat for one of their chieftains. There are also the ruins of Madjar, whence Reinegg asserted that the Magyars originated and had their name, but which has since been proved to have been built by Kibchak Tâtârs. There is the Grotto of Mount Kezbec, which is without parallel among ancient cavern temples. It is said to have been inhabited by the

Virgin Mary, and to contain the cradle and garments of Christ, and other invaluable treasures. The grotto is excavated in the cliff at least 500 fathoms above the boundary of perpetual snow. It has, however, been referred to a period anterior to the introduction of Christianity. The mountain fortress of Douhet was formerly the palace of Heraclius, father of George, last king of Georgia. There is a German colony, occupying seven villages in the neighbourhood of Tiflis. It consists chiefly of peasants from Würtemberg, who, in 1819, left their native land to escape religious persecution. Among the most interesting remains in the Caucasus are the Mussulman inscriptions, copies and translations of which will be found in a memoir by M. N. de Khanikoff, in the *Journal Asiatique* for August, 1862. They occur especially in the country to the north-east, and are most rare in that of the south-east. There are ninety-five inscriptions in all; two of them are ante-Islamic, the others are most numerous in the sixth, seventh, eighth, ninth, and twelfth ages of the *hejira* consecutively. One of the most ancient is of the epoch anterior to the invasion of the Russians at Berda'a, near Belakan, an event put down by Massudi approximately to the year 300 of the *hejira*, but proved by Fraehn to have taken place in 332. It seems to have been placed by Mullah Sefer, son of Būd, "by the two hands of Muhammed, son of Jafar." The author of the paper speaks of the dolichocephalism of crania found in Iberian sepulchres near Mzkheth, which, he says, bear signs of artificial deformation by means of bands, as among the Georgians of the present day. Apart from the term "Caucasian," as applied to certain peoples, it may be doubtful what is the usual skull form of the peoples inhabiting the Caucasus. Dr. Barnard Davis gives crania of a Lesgian and of a Georgian, both of which would appear to be brachycephalic, and the Turks are brachycephalic. In the table of Meigs, the cranial capacity of the Caucasians in general would seem to be not much below that of the English, but the results were obtained from only a very small number of skulls; viz., of the former only one, and of the latter only five. But are we to infer that the Iberian crania in question are artificially deformed, or that they are merely different in form from those of the present inhabitants of the country?

After referring to the Turkish crania, and the supposed effect produced by infants being laid on their backs in the cradle, as shown by the head form of the Belgians and Germans; the globular crania of the Genoese and Greeks; to the custom of skull deformation practised by barbarous tribes; and to Peruvian skull deformities, the President said: The Georgians may have formerly bandaged their infants' skulls, and they may still do so, but for what object? Why should a non-savage people—a people that possesses the most perfect crania—use artificial means to deform them? In connection with the caverns of the Caucasus, it might be as well to notice those on the opposite coast, *i.e.*, in the Crimea. Of these, the most interesting are in the vicinity of Inkerman (the *κεννοῦς λιμὴν* of Strabo). Pallas thinks they were excavated by monks during the reigns of the Emperors, in the middle

or later ages. According to Byzantine historians, some of the inhabitants of the Chersonese, being Arians, were persecuted by the Greek empire, and Pallas thinks that many monks, unable to procure an asylum in Korsun (in the Crimea), formed these cells, and constructed chapels in the soft calcareous rock. Other cells are found in a terrace of the calcareous mountain to the north-west of the village of Karani, near Balaklava, and in different parts of the peninsula. It may be noted that the name "Inkerman" is a Tâtâr compound, signifying "town of caverns" (*in-kerman*).

The following papers were then read :—

ROUMANIAN GYPSIES.

By Dr. CHARNOCK, F.S.A., President London Anthropological Society.

ALL historians agree that the Gypsies first entered Europe by way of Moldavia, which formerly extended to the Black Sea. Some hordes arrived in Moldavia in the nineteenth year of the reign of Alexander-le-Bon, viz., 1417. There are at the present time more Gypsies in Roumania than in any other part of the globe. In 1837 they are said to have numbered 200,000, but this must have been underrated; for, according to the census of 1860, they reached 300,000; the whole population of the country amounting to 4,424,961. Further, at the first-mentioned date, the Gypsies in Turkey are put down at 200,000. If they do not now exceed that number, and if it be also true that the Gypsies of Europe, Africa, and America do not exceed one million, then one half of them are located in Roumania and Turkey. The fact of their being so numerous in Roumania was due to the way they were treated; they had a great many privileges. In Moldavia, Alexandre-le-Bon gave them liberty to wander through the whole principality, and to use the iron for their forges. They were afterwards reduced to slavery, and they were still in this condition until within the last thirty years.*

* In the narrative of the Scottish Church Mission of Enquiry to the Jews, in 1839, are the following remarks relating to the Gypsies of Wallachia :—"They are almost all slaves, bought and sold at pleasure. One was lately sold for 200 piastres, but the general price is 500. Perhaps £3 is the average price, and the female Gypsies are sold much cheaper. The sale is generally carried on by private bargain. The men are the best mechanics in the country; so that smiths and masons are taken from this class. The women are considered the best cooks, and therefore almost every wealthy family has a Gypsy cook" (Conf. also Sulzer). In 1837, a French writer says :—"Dans tous les environs des nobles il y a un code pénal pour les esclaves qui ont fait quelque faute. Autrefois on punissait le coupable en le faisant battre à la fâlanga. Ce genre de supplice extrêmement cruel consiste à frapper avec des verges la plante des pieds nus, qui sont attachés à un grand bâton que deux hommes tiennent levé, de sorte que celui qu'on bat ne s'appuie sur la terre qu'avec la tête et la partie supérieure du dos. Ce supplice est défendu maintenant par le règlement organique. Lorsque quelque Cigain s'attire aujourd'hui quelque punition, il est frappé à coups de fouet, et chez beaucoup de boïars il est seulement enfermé pour quelque tems; mais lorsqu'il a pris la fuite et qu'ensuite il est rattrapé on lui met autour du cou un collier muni de pointes de fer qui le gênaient pendant le sommeil; on appelle ce collier les cornes."

(A detailed description of a Roumanian Gypsy skull will be found in an article by Isidor Kopernickii; in the *Archiv. für Anthropologie*, part v., 1872.) The physiognomy of the Roumanian Gypsies is generally full of expression and sadness; the hair is black, the eyes black and sparkling, the eyelashes brown. Although not very tall, they are well-built. The chest, back, arms, and limbs are in the finest proportion. They are generally strong, and their mode of life enables them to endure hunger, great fatigue, and the inclemency of the seasons. They frequently reach the age of 100. There are, however, many cripples. This is said to be due to more than one cause. When the husband and wife quarrel, both of them frequently take one of their children by the feet and fight as with sticks. They also try to attract compassion and obtain alms by making wounds in their bodies, which, becoming gangrened, often occasion the loss of the entire limb.

Like the rest of the race, the Gypsies of Roumania have no religion; they believe in fetich; they worship useful objects, as their tents, carts, and forges. A late writer, after referring to the religion, religious ceremonies, and education of the Gypsies generally, says:—

“En Moldavie et en Valachie ils font baptiser leur enfans par les prêtres orthodoxes; mais ce n'est pas pour le motif de la religion; c'est pour l'argument irresistible de Don Basilio, c'est à cause de l'argent qu'ils reçoivent du parrain ou de la marraine. Aussi font ils baptiser le même enfant neuf ou dix fois dans toutes les parties de la principauté; il n'est pas rare de voir un jeune Cigain, âgé même de vingt ans, venir vous demander d'être son parrain. De même qu'ils ne reconnaissent pas de religion, ils ne reconnaissent pas non plus de mariage légitime: pour ce grand acte de la vie humaine ils n'ont aucune cérémonie religieuse. Quand un jeune garçon a atteint l'âge de quatorze à quinze ans, il s'aperçoit qu'il lui manque quelque chose de plus que le pain et l'eau. Il prend la première fille qu'il trouve, fut-elle même sa parente, et en fait sa femme: lorsqu'ils se marient, les deux jeunes gens prennent une cruche de terre, la brisent, et ils sont mariés justement comme Gregoire et Esmeralda.* Ils soignent très-mal, ou, pour mieux dire, ils ne soignent pas du tout l'éducation de leurs enfans: dès qu'il peuvent marcher ils les laissent courir en liberté dans les forêts, ou dans les rues des villes et des villages; ces pauvres enfans nus grelottant de froid, sont obligés de mendier ou de voler leur pain, à peine si le soir ils trouvent un peu de feu pour se réchauffer dans la tente de leurs parens. Jusqu'à l'âge de quinze à seize ans ils vont tout nus, hiver et été, et pour donner une idée de leur misérable état je raconterai une anecdote assez caractéristique: au milieu d'un hiver rigoureux, un enfant Cigain, tout nu, se plaignait d'avoir froid. 'Tiens, mon fils,' lui répondit sa mère, 'prends cette corde et tiens-t'en, tu auras chaud.' ”

Most of the Roumanian Gypsies are very filthy in their persons, and from their very birth are covered with vermin; they scarcely ever wear a shirt, and are usually clothed with only a few rags. They are, nevertheless, very fond of dress, especially lace and embroidery; they prefer striking colours, especially red and blue garments, and yellow boots.

Their ordinary diet is *mâmăliga*, a sort of a polenta made from maize, i.e., English corn; they usually eat it without any addition, but they sometimes eat cheese with it. Their repasts are,

* The marriage ceremonies of the Gypsies differ somewhat in different countries.

however, occasionally enlivened by geese, chickens, or sucking pigs. Their ordinary drink is water, but they are very fond of brandy. Their own *eau de vie* is usually made from prunes, and is called in Roumania *tzouica*. The nomade Gypsies of Roumania, like those of Spain, are fond of carrion. When they come across any animal, except a horse, that has died of disease, they look upon it as a wind-fall, and have a great feast. They consider the flesh of an animal killed by God must be better than that killed by man.*

Females as well as males smoke from five or six years of age. The men have a pipe in the mouth the whole day; when out of tobacco, they smoke dried walnut leaves.

Like other Gypsies, those of Roumania despise all other people. They alone are entitled to the name of men. They call themselves *Romnitschel*, i.e., "son of the woman," or "*Rome-men*."

They are generally speaking very cowardly, and only attack foot-travellers, and with a great stick; but, if the party attacked presents a pistol, the whole horde, sometimes numbering 100 or 200, takes to flight immediately.† Although they despise the Gypsies, the Roumanian people nevertheless fear them; they believe them to be able to invoke invisible beings to their aid, and that at the end of the world they will come with Antichrist to torture and devour their children.

Thus much for Roumanian Gypsies generally. The Gypsies of Roumania were formerly either slaves of the Crown or of private persons. The former were divided into four classes, called Rudari, or Aurari, Ursari, Lingurari, and Lâiessi, each of which paid an annual tribute to the Crown. The latter consisted of two classes, called the Lâiessi and Vâtrassi. Although slavery has been abolished upwards of twenty years, inasmuch as there is still a considerable difference in the manners, habits, and customs of each of these classes, it may be as well to say something of each of them separately. 1. The Rudari, or Aurari had formerly the sole right of searching for gold in the rivers and the sands formed from the mountains.‡ The revenue belonged of right to the reigning princesses of Roumania. The name Aurari means "gold-seeker," and is probably derived from the Wallachian word *aurariu*, which signifies both a goldsmith and a goldwasher; from *auru* (*aurum*), gold. 2. The Ursari, or dancers of bears, go from place to place leading bears, which they capture very young in the Carpathians, and train up to all sorts of dances. In order to avoid accidents, they polish the teeth and nails; and slightly burn the eyes to prevent their seeing distinctly. The name of this class is derived from the Wallachian *ursoe*, from Latin *ursa*. 3. The Lingurari make wooden spoons and vessels of wood and coal, and

* Conf. Kogalnitchan.

† In Transylvania attempts are frequently made to cut away the passengers' luggage from the back of the diligence, and the guard usually carries a gun for protection.

‡ Most of the Roumanian rivers, but especially the Olto (Aluta) the Ardgéche, and their affluents, roll sands of gold.

they are the most civilized of the four classes. The Wallachian word *lingurariu* is rendered "fabricator lingularum, opifer cochlearium, German löffelmacher." 4. The fourth class is the Lâiessi. Subject to an annual tribute to the State, they were allowed to wander through the principality, and to pasture their horses on the highways. Although very adroit, they work very little, and many of them pass the whole day in sleep, and the night in thieving, and they are more filthy than the other Gypsies. They, however, sometimes follow the occupation of working masons, smiths, and makers of combs. They prefer working iron; they make locks, keys, nails, iron for ploughs, earrings for the peasants, for which purpose they carry forges with them. They also formerly manufactured military weapons, as guns, lances, sabres, bombshells. The women are engaged in much the same way as the English Gypsies.

Except the *Lingurari*, who of late years have commenced to build fixed dwellings, all these four classes are nomades, and have the same language. In summer they encamp under tents; in winter they dwell in huts in the forests, which they construct underground. These huts are always at the environs of villages, in order to obtain work or to satisfy their *penchant* for theft. Ten to fifteen families (called in Wallachian *sâlassa*, *sâlassuri*) are governed by a chief, whom they call *Jude* or *Juge*, who is subordinate to a *Bulubassa*, called in Hungary and Transylvania *Voivode*. The *Judes* and *Bulubassas* go nearly always on horseback, wear a long purple garment, yellow or red boots, and a cap of lamb's skin, resembling a Phrygian cap. The *Bulubassas* enjoy a certain authority over the rest, and formerly received two piastres per cent. of the tribute which they collected, had the right to punish the guilty, and accounted to the local government.*

The slaves of the private persons formerly belonged either to the monasteries or to the boyars. They were divided into two classes, the Lâiessi and the Vâtrassi. The Lâiessi of the private persons had the same usages as the Lâiessi of the Crown. They wandered at will through the principality. Instead, however, of a tribute to the government, they paid it to the boyar or to the monastery of which they were dependents. When their master built a house, they were bound to work as masons, for which they received a piastre a day. The men of the Vâtrassi class, especially the Wallachians, are all well built, tall, have a fine physiognomy, beautiful black eyes, and long black hair. Their daughters are brunettes, have classic features, large black eyes, and finely-arched eyebrows; but, on becoming mothers, they are excessively ugly. The Vâtrassi† have fixed dwellings, have entirely forgotten their language, have lost the Gypsy manners and usages, and can now scarcely be distinguished from the rest of the Roumanian people. They are, indeed, more

* Chatrar, "erecter of tents," was a title borne by the chiefs of the Gypsies.

† I know not the origin of this name. One of the meanings of the Wallachian word *vatra* is "fundus, domus." Colson renders it in Moldavian, "âtre, foyer."

civilized than the Roumanian peasants themselves. Some are engaged in agriculture,* others are barbers, tailors, shoemakers, bakers, masons, coachmen, cooks, lackeys, scullions; the women are employed in waxing and cleaning apartments, washing linen, making dresses, embroidering towels and handkerchiefs with gold and silver, in which they excel.

The best musicians are found among the Vâtrassi. Having once heard a sonata or a symphony, they can execute it with great precision, without being acquainted with a note of music. Their musical instruments are the violin, upon which they are very proficient; the colza or mandoline, an instrument with nine cords, which is peculiar to them; the naiu, or flute of Pan; the daira, or Basque tambourine; † and the moskalu, or ancient syrx, for which they have an especial talent. Some of the names of the instruments are of native origin; others are derived from the European languages. The violin is called the *viora*, *lauta*, or *dibla*. The Wallachian word *viora* is rendered "die Geige, Violine."

The name of the *lauta* may be compared with the Slowjnk *laŭtna*; Pol. *lautna*, *lŭtnia*; Russ. *lyutnja*; Barb. Greek *λαουτρο*; Med. Lat. *laudis*, *lautus*; Ital. *liuto*; Arab. *aland*; G. *die Laute*. The Slowjnk *kobza* is rendered, "die Fiedel, ein der Laute ähnliches Instrument." The Wallachian *muscalu* is rendered "dér Muscovite." The Hindústání *nai* is a reed, tube, pipe, flute, fife, cane; a word of Persian origin. The word *daira* is from the Hindústání *da'ira*, "a tambourin," a word derived from the Arabic. The dance music of the Gypsies is more appropriate than that of Europeans in general, and they play in better time. During the war between Russia and Turkey, the Russian officers preferred their dance music to that of their own regiments. When they sing popular songs they always accompany themselves, and they have, generally speaking, very good voices. They have also some very good composers, among whom might be named Succawâ, Angheluzzâ, and Barbâ.

The national dance of the Gypsies is the *tândana*. It is a sort of fandango, and consists in leaping, in making lascivious gestures with the arms and legs, and in striking the buttocks with the heel of the feet. From Christmas to the end of the Carnival they perform with puppets at night, and in this they are very clever.

I will now say a few words on the dialect of the Roumanian Gypsies. The language is based to a great extent upon Hindústání, Bengálí, Malabar, Mooltan, and Sanskrit. It has also many words from the Turkish, Magyar, Wallachian, the Slavonic languages,

* In the Moldavian village of Ripi (district Falcii) are seven or eight Gypsy families who cultivate their fields, which they do with more care and attention than even the peasants themselves. In Transylvania and the Bukovina many of the Gypsies have fixed dwellings, which they seldom give up. In Servia, Prince Milosch has tried to engage the Gypsies in agriculture. The first trial took place at Poscharewätz, and was attended with success. Here they eat bread of maize, which they grow themselves, and they have become civilized.

† This instrument is used by the Gypsies who make the bears dance.

especially the Servian and Bulgarian, and some from German and modern Greek. Thus, *alo*, an eel, from German *aal*; *buchos*, a book, from *buch*; *klusturi*, a cloister, convent, from *kloster*; *keglo*, a ninepin, from *kegel*; *klidin*, a key, is from modern Greek, κλίδι; and *kambana*, a bell, from καμπάνα. Many native words are common to most Gypsy dialects. Different Gypsy tribes have, however, derived many words from different Indian languages; that is to say, in order to express a particular thing, one tribe has borrowed from one Indian language, and another tribe from another Indian language. All Gypsies have also borrowed from the languages of the countries in which they happen to be located. Such being the case, a Roumanian Gypsy would frequently not understand a Spanish, French, German, or English Gypsy. A German Gypsy would make use of *mondo* for moon, *stuhlo* for chair, *tischa* for table; whereas the Roumanian would say *tschonn*, or *mrascha*, *scaurnin*, *chamasgri* respectively. Their vocabulary has, however, sometimes the same word, but they do not always make use of it. There is occasionally a difference between the Moldavian and the Wallachian orthography. The Moldavian word for squirrel is *beveriza* or *beverizza*; in Wallachian it is *weweriza* or *reverizza*.

A study of the language is difficult; first, because the Roumanian Gypsy is very secret on the subject; second, because they frequently use false expressions; and, lastly, because four or five words are often used for the same object; while, on the other hand, a single word often denotes four or five different things. In the Roumanian dialect there are only two genders, the masculine and the feminine. All nouns ending in *o* are masculine; in the plural they change *o* into *e*; all masculine nouns terminate in *es* in the accusative singular, and in *a* in the feminine. The accusative plural in both genders ends in *en*. Most of the adjectives end in *o* for the masculine, in *i* for the feminine; the plural for both genders ends in *e*. Many adjectives are formed from nouns by adding to the accusative (in both the singular and plural) *gro* for the masculine, *gri* for the feminine, and *gre* for the plural of both genders. The formation of degrees of comparison is very simple. The comparative is made by adding the termination *der* to the adjective; the superlative by placing the word *balu* (again) before the comparative. When it is wished to give additional force to the superlative, the comparative is preceded by the word *kono* (very), which is sometimes reduplicated. In the Roumanian Gypsy dialect the verb is difficult, and very defective and irregular. Some of its tenses are formed quite differently from those in other Gypsy dialects. Some verbs want the tenses altogether; and, to replace them, long circumlocutions are necessary. Strictly speaking, the Roumanian dialect has only two verbs; the auxiliaries, *me hom*, I am, and *waben*, to become, which form the conjugation of all other verbs, active, passive, &c., &c. The auxiliary *me hom* has no infinitive, and only one tense, viz., the Indicative. In Active verbs most of the Infinitives end in *ben* or *en*; some, however, end in *ā*. The Imperative is the root of the verb, and, with the auxiliary

verbs, serves to form the other tenses. Most of the Imperatives are monosyllables, as *pen*, speak; *sob*, sleep; *gur*, strike; *de*, give; *dscha*, go. Some, however, are dissyllables, as *rakker*, speak; *choche*, lie, &c. The present tense is formed from the Imperative, and *waba*, the Present of *waben*, to become. The past participle is formed from the past tense of the Indicative, by taking away the letter *m* from the end of the first person singular. All the other tenses are wanting, and the past tense is used instead of the imperfect.

The Roumanian Gypsies have no name for spring or autumn. They use *wendo* (bad season) for winter, and *nieli* (good season) for summer. They have no word for any day of the week except Sunday, which they call *gùrko*. This word is also used for "week." The word *daisa* is used both for "to-morrow" and "yesterday." *Tofe* signifies "to smoke," but for "smoking tobacco" they employ the word *biben*, or *pica*, to drink, as *biben tuwielli*, to smoke tobacco. The word *saster* means both iron and ice, but there are two other words for ice and one for iron. The following table will show the connection of the Roumanian Gypsy dialect with the Hindústání, Bengálí, and Sanskrit :—

English.	Roumanian. Gypsy.	Hindústání.	Bengálí.	Sanskrit.
Day	diwes	dýu, dewas, divas	diu	div, divasa.
Ear	kán, cam	kán	kon	
Earth	pup	bhūm		bhūmi.
Eye	jak, jakcha, jatch	ánkh	aank	akshi.
Gold	sonnai, sonnikey	sonā	sonen	sonā.
Hair	bal, bala	bāl		
Head	schéro, tschero, scherb, cheru	sar, sir	sir	çirshâ, çiras, çira.
Moon	tschonn, mrascha	chând, chandar	shand	chandra.
Month	mui	munk, mukh	mu, mun	
Night	ratti, rath, radschka	rât	raat	ratri.
Nose	nak	nāk, nāsika	naak	
Salt	lon, luhn	lon	lon	lavan.
Silver	rup	rūpā	rupa	rupya.
Sun	kam, cham	shams		
Tongue	tschip	jibh	tchibb	
Tooth	dant	dānt, dāudān, danlāwa	dant	danta.
Water	pan	pāni	paani	pāniya.

The following table will give some idea of the difference between the Gypsy dialect of Roumania and the dialects of Spain and England :—

Roumanian Gypsy.	Spanish Gypsy.	English Gypsy.	Meaning in English.
Tschonn, mrascha	chimutra, tremutcha	chine, choom	moon
Kam, eham	cam, can	cam	sun
Kalo, melelo	calo, caloro	corlo	black
Dant, darija	dani	danyor (teeth)	tooth
Diwes	chibes	divvus	day
Kan, cam	cani	can	ear
Gürumni, kurkumni, gurun	gorbi, gorny (ox)	groovny	cow
Ker, caha, këhro	quer	kair	house
Sonnai, sonnikey, schomaakai	sonacai	soonakye	gold
Kangri, kangheri, kandir	cangri	kongeree	church
Piro, pihro, pro	piro, piuro, piudro	peero	foot
Köbro	coriá, euro	korro	cup
Maro, mauro	mauro	morro	bread
Mol, mohl, mul	mol	mil, mol	wine
Rup, aup	plubi (rupi)	reup	silver
Rad	arate, rati	rat	blood
Sterna, tscherna, tscherbe, dew- leskëri, momelin (God's light)	astra	starry	star
Tud, zud	chuti	tood	milk
Dschukklo	chuquel, chûque	jookkel	dog
Tschirrkulo, tschirikli	chiriclo	chericly, chericlo	bird
Tschabo, tschowo, tschawo	chabo, chaboro	chavy, chabby, chavo	child
Baridir krah	crallis	crallis	king
Latsakerit bikken	binar	bick	to sell
Beng, byng	bengue	bang, beng	devil
Wendo	oben	ven	winter
Pani	pani	parnee, pani	water
Kuzhilo, gusto, guschja	angusti	vongusto	finger
Iak, vag	yaque	yog	fire
Jak, jakcha, jakh	aquia	yok	eye
Jaras, garum, yoro, antru	anro	yorro, yorry	egg
Deaf	diñar	del, dey	to give
Rezh, pahr	quejesa	cage	silk
Nak	naqui (nostril)	nok	nose
Tschipp	uchi, chipe	chiv	tongue
Churi, tschurin	chulo, chori	choory, cheury	knife
Jen	chanciar	jin	to know
Chamaben, chabben	jalar	col, hol	to eat
Port	pul	poodge	bridge
Bal, bala	bal	bal	hair
Schëro, tschero, scherb, cheru	jero	sherro, shorry	head
Rom, manusch, gajo	room (a husband)	moosh (mancosh) rom (a husband)	man
Ratti, rath, radscha	rachi	ratty	night
Bani, seero, siro, bauropani		boro-pani	sea
Romni, gadschi, mannischi, ghiromni		mooshny (romy, romeny, wife)	woman

For further information on the Gypsies of Roumania and the adjoining territories, consult *Graffunder*, "Ueber d. Sprache d. Zigeuner," Erfurt, 1835, 4o.; *Kogalnitchan* (Michel de), "Skizze einer geschichte der Zigeuner," &c., übersetzt von Fr. Caska, Stuttgart, 1840, 8o.; *Poissonnier* (Alfred), "Les esclaves tsiganes dans les pricipautés danubiennes," Paris, 1855, 8o.; *Paspati* (Alex. G.), "Etudes sur les Tchinghianés ou Bohémiens de l'empire Ottoman" (652 pp.), Constantinople, 1870, 8o.; *Possart* (Dr. Feodor), in "Das Ausland" of 30th September, 1836; *Molnar*, "Spec. Ling. Czing." (in Ungarn), 8o., Debrecz, 1798; *Ennesid* (György), "A'Czigány nemzétnek igaz eredete történetei," 8o., Komar, 1798; *Giselini* (Fr.), "Ueber die Zigeuner in seiner Geschichte des Banates," 1 Th. 6. D.; *Colson* (Félix), Moldavie et Valachie, 8o., Par., 1839.

ON THE GYPSY DIALECT CALLED SIM.

By Dr. CHARNOCK, F.S.A., President London Anthropological Society.

VON KREMER,* in his work on Egypt, after giving a description of the different tribes of Gypsies, says, "All these subdivisions of the Egyptian Gypsies speak the same thievish slang language, which they call Sim. The Bahlawān tribe alone are said to speak another language. I was, however, unable to procure any evidence to that effect, nor does it seem to be well founded." Von Kremer then gives a vocabulary of about a hundred words; and, after stating that the Egyptian Gypsies speak Arabic amongst themselves, and Sim only in the presence of strangers, he is of opinion that the dialect in question is used for secrecy. He thinks some of the words may be from the Arabic; some from the Coptic; and that others may have been imported from the West, perhaps from the Berber language. Having compared Von Kremer's vocabulary with the Berber, and also with the Shillah, Showiah, Tuaryk, and Siwah dialects, I have not been able to trace any of the words to those sources; neither does the Sim dialect appear to be in any way connected with the Nubian dialect, Barābra; and I have little doubt that nearly all the words are of Arabic origin, disguised by means of prefixes, suffixes, &c.

The following words are simply corruptions from the Arabic:—Hoggēr, a stone, from *hajar*, idem; anta, pl. anāti, land, region, from 'and, 'und, which Freytag renders *lātus, tractusque rei*; churrāf, a lamb, from *kharāf*; widn, an ear, from *uzn*; ucht, a sister, from *ukht*; arūbeh, an aunt, perhaps from 'arūb, beloved. Some words are concealed by means of an Egyptian suffix, variously written *ish, isch, āish, āisch, esh, she*; as sharkāish, the east, from *shark*; gharb-

* "Ägypta; Forschungen über Land und Volk während eines Zehnjährigen Aufenthalts," von Alfred von Kremer (Egypt, Exploration of the Country, and Studies of its Inhabitants during Ten Years' Residence). Leipzig, 1863.

äisch, the west, from *gharb*; kiblāish, the south, from *kiblat*; anything opposite, the sun (*kiblēy*, southern); hadidāish, iron, from *hadīd*; merkubāish, a shoe, from *markub*; husānāish, a horse, from *hisan*; sha'rāish, hair, from *sha'ar*; dibāisch, a wolf, from *dzayb* (Vulg. Arab. *dzb*); tibnāish, straw, from *tibn*; mubgārshe, a cow, from *bakara*. Other words are suffixed by *āh* or *eh*, as shagarāh, a tree, from *shajar*; * shammāleh, a hand (also five), from *shamāl* or *shīmāl*, the left hand, allied to the Hebrew. Other words have the prefix *mi* as well as the suffix *esh*; as midhābesh, gold, from *dzahab* (Vulg. Arab. *deheb*); machshābesh, wood, from *khashab*; migbālesh, a mountain, from *jabal*; migrābesh, a sack, from *jirāb*, a kid-leather bag. Again, some words are disguised by means of the prefixed article *el* for *al*, the last letter of which, as in Arabic, is exchanged for that of the first letter of the word that follows; and the word is also suffixed by *eh*, as er-raghaleh, a foot, from *rijl*; en-nebbāsheh, a fowl, perhaps from *nabis*, twittering (a sparrow). Some words are prefixed by *ma* and the Arabic article; thus, el-ma-asfar, gold, from *asfar*, yellow. Von Kremer renders the word ma-anwāra, hell, i.e., fire. The root of this word would seem to be the Arabic *nar*, fire, or *uwār*, rendered æstus, ardor, ignis (Persian, *āwār*, heat; Hebrew, *aur*, fire), prefixed by *ma* and the article *al*. Some of the remaining words may be derived from the Indian languages. Sanno, a dog, would seem to be from the Hindústāni *swān* (Sanskrit, *swān*); barūah, fat, may come from *bhārī*, big, fat; hantif, a camel, from *unt* (Malay, *unta*). Zuwell, an ass, is probably derived from the ordinary Gypsy word *aizel*, from German *esel*. One word may be from the Berber, by inversion. I refer to *sem*, a brother, boy (whence, no doubt, as a feminine form, *sem'ah*, a girl, sister) from the Berber *myss*.

I give the numerals up to ten, all of which, except the first two, would appear to have been corrupted from the Arabic.

Sīm.	Arabic.	Sīm.	Arabic.
1 Mach	wājīd or ājad	6 Sūtet	suttat
2 Machem	ithnāni	7 Sūbi	sab'at
3 Tulit	thalālhat	8 Tūmin	thamānit
4 Rūbi	arba'at	9 Tusa	tis'at
5 Chūmis	khamzat	10 'Ushir	'ashrat

Von Kremer says, "Nothing certain is known as to the origin of the word Sīm. According to the natives, it means something secret or mysterious. A spurious gilt wire imported from Austria is called Sīm." My friend, Captain Richard F. Burton, thinks Sīm, properly *El Sīmiyā*, is a word formed upon *El Kīmiyā*; and that *Kīmiyā* is probably derived from the Greek *χυμος*.†

* *Planta trunco aut caule prædita, sive crassa sive tenuis sit; tum arbor. Kam., Dj.—Freytag.*

† The Karnata word *sēma* signifies hidden treasure.

ORDINARY MEETING,

*Held at 37, Arundel Street, Strand, London, on Tuesday, 21st April,
1874,*

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

Election announced :—Fellow : Eustace S. Smith, Esq., M.A.

Presents announced :—For the Library, Instructions sur l'Anthropologie d'Algerie, by Gen. Faïdherbe and Dr. Topinard ; Description of Province of Ancachs, by the Peruvian Government.

The following paper was read :—

ON HYBRIDISM.

By EDWARD W. COX, Serjeant-at-Law.

My purpose in this paper is to investigate the physiology of hybridism.

Whatever the process, it is, doubtless, the same with man, with the lower animals, and with vegetables ; but I limit the present inquiry to man.

What is the current theory ?

That the germ of the future being supplied by one parent is vivified, or in some mysterious manner affected by the other parent, insomuch that the offspring partakes of the characteristics of both parents.

Until a very recent period, the scientific, as well as the popular, doctrine was that the germ was produced by the mother, and that the father supplied merely a stimulus—some called it an *aura*—by means of which the germ that was in the mother was not only stimulated to life by, but made to assume, more or less, of the bodily and mental characteristics of, the father.

The later and better opinion has been that the father supplies the germ and that the mother provides the cradle in which the germ is nursed to maturity. Hence a more rational accounting for the mixture of parental qualities in the offspring. The resemblances to the father were supposed to be due to the fact that the offspring was the product of the father ; the resemblances to the mother, to the fact that it was nursed by the mother's blood, and shaped by some formative force in her womb.

But this theory, although infinitely more reasonable than the other, still leaves much that is incapable of explanation. If the germ

be from the father, and the mother merely supplies the material for its development and growth, how comes it that the offspring so often resembles the mother in form? The womb is not a mould in which the child is shaped like a bronze statue, nor has it a formative force by which the child is modelled as by the clay of the sculptor. The child is attached to the mother only by a tube, through which it is fed. The nerve system, by means of which the child is developed from the germ to the perfect being, is not the nerve force of the mother, but its own. The nerves of the child build the child. No nerves of the mother pass into the child. How, then, can the character of the mother be conveyed to the child? It is easy to understand how it may be with the father. If the germ be his, it might be expected to resemble him, and the similarities to him are thus readily accounted for. But the resemblances to the mother are entirely inexplicable on the accepted theory of a germ produced by one parent and merely vivified and nursed by the other parent.

Take the case of a hybrid. A white man marries a black woman. If the germ of the child is from the father, it would be white, like himself, as is shown by this—that, if the mother be white also, the child is white. But the mother supplies to the germ the whole material of which its structure is composed. Now, if, because the mother is black, the material of her blood produces a black skin, the child ought, according to the received theory, to be black, and not a mulatto. Observe that the father has produced merely a germ—that is to say, a mere speck—which is the undeveloped human being. The entire material of which that being is built comes from the mother; and, according to all reasonable expectation, the material should be such as the mother produces, and should not bear any traces of the father, who has really contributed nothing to it. But the material supplied by the mother would produce a black skin as shown by this, that, when the father is black, although he contributes no portion of the material, the child is black.

So, also, the accepted theory of a single germ leaves another fact in hybridism wholly unexplained. How are mules produced? and why are mules barren? What, in fact, is the limit of hybridism? and how is that limitation caused? The usual answer, that Nature sets her face against any departure from her settled forms beyond certain narrow limits, and is ever striving to return to the original stock, is not an explanation at all. It merely substitutes *why* it is for *what* it is. We are inquiring now not into design, but into practice. We are asking what Nature actually does, not what she merely desires to do.

I repeat that the existing theory of a single germ solves none of the difficulties attending the production of the human being, and it is entirely inconsistent with many of the facts.

Can a more reasonable and probable theory be suggested?

Such a one has occurred to me, and I venture to ask the consideration of it by others better qualified than myself to form a judgment upon it. Whether it finds favour or not, it will probably

be admitted that it explains much that is otherwise inexplicable, solves many problems for which no solution has yet been offered, and removes a great deal of difficulty and doubt that have pressed upon every mind that has given thought to the subject.

The undisputed facts of the human structure strongly favour the suggestion which I submit to the unprejudiced consideration of Anthropologists. It is, that man is not, as the assumption is, constructed of one germ produced by one parent only, and either vivified or nursed by the other parent, but that he is constructed of *two* germs united, each parent supplying a germ.

The suggestion will probably startle at the first presentation—it is so opposed to our habitual manner of contemplating the process of generation. But the more it is considered, I think it will be found the more to recommend itself.

I will now proceed to state the facts and arguments by which this theory of a double germ may be supported.

The scheme of animal structure is duplex, by which I intend that the frame is constructed of two parts or halves united at a medial line. That one germ should be so developed is, to say the least of it, remarkable. Certainly it is not the way in which a skilful mechanic, required to construct the like form, would proceed to execute the work. No mechanic would cast all the parts of a machine in two parts, and then join them; much less would he make the two parts unlike. The sculptor would not dream of modelling and chiselling each half of his hero separately, and then sticking the two halves together. Yet this is what the theory of a single germ compels us to conclude that Nature does in constructing a man.

It may be said, perhaps, that the whole scheme of Nature is symmetry, and that this is the purpose of the duplex structure; and crystals may be adduced as an instance of symmetrical structure in inanimate matter, where no other purpose is apparent than symmetry. There would be much weight in this argument, but for the patent fact that, if symmetry be Nature's object, it is not attained. The sculptor, moulding an ideal man, employs his utmost skill to make both sides of him alike. He would be rightly looked upon as a bungler in his art if one half of the body differed in the slightest perceptible degree from the other half of it, if the keenest eye could discover in size or shape the least divergence of one side of the face from the other side of it. But how is it with the form and face, constructed according to natural laws? Nature is said to work with a perfection of symmetry which human skill in vain strives to attain, and she does so in inorganic structure, as in crystallization. But what is the result in the human structure? If symmetry be sought, it fails utterly. The two halves of the body are rarely, if ever, alike. Very little observation is required to discover that one side of almost every face differs more or less in shape from the other side of it; so it is throughout the entire form. The fact is so well known that there is no need to dwell upon it. But even if symmetry were not the object, there is no apparent purpose in the construction of a body that is designed

to be one whole by putting together two halves. It is not thus clumsily that any human artificer would work. Even if a sculptor were compelled by some defect in his material to make his statue in two halves from summit to base, he would take the utmost pains to conceal the junction. He would leave no medial line to betray his awkwardness. But in the structure of man not only are two perfectly distinct and usually different halves brought together, but the point of junction is plainly visible, and this not only in the external structure, but even in the brain. This is certainly, when we come to think of it, a strange method of constructing or of developing a body which, if it proceeds from a single germ, is one whole and not two halves.

It will be said, perhaps, that, although the entire of the framework of the form is duplex, the viscera are single. The brain and nerve structure are undoubtedly duplex. The lungs are duplex. Although we have not two hearts and two sets of viscera, these are all constructed of two halves and not as one whole, by which I mean that they are not made as a potter would make a jug, or a founder a tube, by moulding the entire round at once; but they are formed precisely after the same fashion as the frame of the body, by putting two halves together.

If, therefore, the body of a man were to be examined for the first time by some intelligent being, who knew nothing of its origin, but merely judged from its appearance, he would say of it decidedly that it was not constructed as one whole, but was made of two more or less dissimilar parts joined together; that each half had been either cast in a different mould, or had been modelled by a different hand.

And if he were further informed that in fact two distinct agencies are required for the formation of this body, would he not say at once, "Thus the peculiarities I have observed are accounted for. One makes the one half, the other makes the other half. This is why the two halves are not alike?" But if then he should go on to inquire what portion of the work is actually constructed by each, and he were told, as the accepted theory is, that one of the makers is supposed to produce the entire structure, but that the other maker imparts to it an imaginary aura or influence, which modifies the entire shape and character of the structure, insomuch that often it more resembles the aura-giver than the actual producer, would not the Intelligence receive the explanation with incredulity, and ask you what proof you have to support so strange and incredible an assertion? And what would be the answer to his demand? Only this, that the structure is formed and nourished in the body of one of its authors; but that cannot be without the imparting of a living organism by the other author. But why a living organism? If a mere aural influence is required to vivify the being produced by the other, wherefore a substantial, material, visible, living creature? Either this creature takes part in the result, or it does not. If it does not, why is it there? If it *does*, what is the part it performs?

"Seeing, then," the Intelligence would go on to say, "that the

action of two persons is necessary to the production of the one structure ; that one imparts to the other a living organism ; that without this living organism the other can produce nothing ; that, in fact, the structure usually partakes of the form and character of both parents ; that it is constructed, not as one whole, but of two halves, that are never exactly alike and often differing much, is it not the more rational conclusion, unless the strongest evidence to the contrary can be adduced, that each of the two persons whose junction is requisite to the result performs an equal part, and that each is the parent of one of these dissimilar halves?"

Such are the reasons, derived from a review of the process of generation, that point to the conclusion that the human structure is not the development of one germ, modified by an imaginary and wholly untraced and unproved influence, but the joint product of two germs united, one germ being contributed by each parent.

How is the junction effected ? Thus. The nerve system is duplex also. All the ganglia are double, the brain is double, the spinal cord is double. If the structure had been one whole, instead of two halves united, and each half complete in itself, it would be supposed that each part would possess and keep its own machinery. But what do we find ? There are two nerve systems, and each nerve system does not take charge of its own half of the structure ; but, quitting that to which it properly belongs, it radiates into the other half, and thus each is supplied with nerve force, not by its own nerve system, but by the nerve system of its opposite neighbour.

Have we not here, then, the contrivance by which the one being is constructed out of the two germs ? The germ of the father and the germ of the mother unite in obedience to some law not yet known. Each germ has in itself the nucleus of a nerve system. As the nerves grow or expand (perhaps expansion is the most probable process), the nerves of the one germ pass into the structure of the other germ. This, then, is the object of the crossing of the nerve systems which is so distinctly shown in paralysis, and the purpose of which has never yet been reasonably suggested.

If this be the right explanation of it, we shall see at once a way out of the overwhelming difficulties that attend any other theory of generation. The hypothesis of a single germ is inconsistent with the facts. Whether that germ proceeded from father or mother, the reasonable conclusion would be that, if the offspring resemble the parents at all, the resemblance would be to the actual parent, and not to the parent who imparted merely some imaginary vivifying force, whose very existence is problematical. But the fact is that the resemblance is as often to one parent as to the other, and more often the offspring partakes, in almost equal degree, of the forms and qualities of both. But, if the double germ suggestion be correct, it is very obvious how by the contrivance of the nerve system of either germ permeating and moulding the structure of the other, the nerve force of one would modify the form and qualities of the other, and, as the consequence of their joint action, the offspring would partake

of the characteristics of both parents. If the nerve force of each germ were equal, the product would partake of the characteristics of both in an equal degree; but if the nerve force of the germ of one parent exceeds the nerve force of the germ of the other parent, the effect upon the offspring would be that the characteristics of the germ having the greatest vital energy would prevail and predominate. And this is precisely what we see; in fact, when we hear the familiar expressions "she is so like her father," "that is mother's boy," "this one has his father's head and his mother's heart," and so forth, they mean, scientifically understood, merely this, that the germ of the father predominated in the one, the germ of the mother in the other.

We may here find also clearly solved the problem of hybridism. Why do certain animals propagate while others do not, and why are the offspring of those animals unable to continue their kind? The vivifying aura will not account for it, nor will one germ. But, if two germs must unite, it must be one obvious condition of vital junction, that they should so far resemble each other in form as to enable the nerve system of the one to permeate the other and to perform its functions. There must also be so much similarity as to produce a certain amount of symmetry. The requirement of these conditions will explain why some unions are fertile, others infertile. The mule is the product of two parents sufficiently alike in form for the nerve system of the germ of one to pass into and perform its functions in the other, and together to form a symmetrical structure. The mule does not breed because the limit of divergence from the typical form has been passed, beyond which the nerve systems could not be exchanged consistently with healthy action. Does not the same suggestion make clear the like case of hybridism in man? The general structure of all human races of man is so alike that the junction of their germs is practicable, and the offspring are not mules, but fertile also. They do not so far depart from the original type as to be incapable of healthy union. But we see in the product of mixed races the most marked illustration of this suggestion of a double germ. The mulatto partakes of the character of both parents, and the colour of his skin is not that of either parent, but intermediate. Is it conceivable that a vivifying aura should produce such a result? Is it not obvious that, by whatever means effected, each parent exercises an equal influence on the structure of the offspring? So the same process may be traced through all the other phases of hybridism.

I cannot conclude without throwing out another suggestion, which may be worth mentioning in its relationship to the subject. May it not be that the germ is in all cases a fac-simile of the parent who produces it, and that it is modified in its development and growth by the influence of the germ with which it is united, and by the other conditions under which it is nursed to maturity? This would account for the maintenance of races of men. The joint offspring of a Tartar man and woman would have all the character-

istics of the Tartar race possessed by both parents ; but the other qualities in which the parents differed would be mingled, and would more resemble those of the parent who contributed the most vigorous germ.

It explains hereditary disease unexplainable otherwise. If the germ be of one parent only, how could it partake of the disease of the other parent? But if each parent contributes a germ precisely resembling himself or herself, that germ would partake of the tendencies of its parent, only modified by the influence of the germ with which it is allied, and which, if more powerful, would control the natural tendencies of the other, and then might crop up again in a future offspring, in which the germ of the offspring of that parent predominated over the new alliance.

Indeed, the applications of the suggestion of a double germ to Anthropology are so numerous that it would be impossible to compress them into a single paper of reasonable length, and I must ask leave to resume the subject hereafter.

I do not advance it as anything more than a highly probable suggestion, supported by facts that are not disputed, and which has at least this recommendation, that it explains almost every difficulty and solves almost every problem that has attended the hitherto accepted theory of generation by a single germ. I have brought it under the notice of the society, in hope that some thoughtful minds may see in it something worth reflection and examination ; that it may be subjected to full discussion and criticism ; that objections may be stated, and if there be any truth in it, it may receive further investigation—for if it be true, its great importance will not be disputed, at least not in a society of Anthropologists.

DISCUSSION.

The thanks of the Meeting having been voted to the Author,

Mr. G. HARRIS said that the subject of the present paper was as old as the time of Aristotle, who had discussed it and speculated upon it. Nevertheless, at the present day they were as far as ever from arriving at a satisfactory conclusion upon the matter. The mode in which qualities and endowments of different kinds descended, not only in the case of man, but of animals also, served well to illustrate the extent to which in some cases both parents, in others only one parent, supplied the characteristics which distinguished the child. The descent of talent had been, in most cases, traced from the mother. But there were instances no less striking in the case of some of our statesmen, where it was evident that the son had derived the talent by which he was distinguished from the father. In the generation of animals, when cross breeds occurred, this derivation of qualities from different stocks was even more clearly exhibited. Thus, in a litter of puppies, some would be of the breed of the father, others of that of the mother, and others a mixture of both parents.

The two spheres in the system alluded to in the paper, it should be borne in mind, were not each two independent complete beings or organs, but together they only constituted one perfect whole, and the features of the two, of the right and of the left, were in certain of the qualities essentially different. The subject was an important and interesting one, and had been treated not only ably but suggestively, which was of more consequence still in a paper of this character, whose main object was to elicit points for discussion.

Professor G. W. LEITNER, Ph.D., thought the author had put forward some very valuable suggestions in a very modest way ; but that he still left some difficulties untouched, and that they had as yet scarcely sufficient data to form a decided opinion upon. Still Serjeant Cox's theory, which, like all great discoveries, was very simple, commended itself more to his mind at that time than any other.

Dr. CARTER BLAKE congratulated the society on Serjeant Cox's philosophical paper, which illustrated the operation of a thoroughly scientific spirit. The *à posteriori* argument could not, in the nature of things, be applied to many physiological problems. He might object to the manner in which Serjeant Cox had used the word germ, as applied to the male fertilising element. Describing briefly the general state of our physiological knowledge respecting the fertilisation of the ovum, he pointed out that the formation of a substance from whence the animal was developed was absolutely derived from the material organism of which, at the earliest period of foetal life, it appeared to form a part. But he considered the method of Serjeant Cox's paper peculiarly accurate, especially when, in the present day, physiology, through the unsuccessful experiments of the modern school, had fallen into decrepitude. A future generation of microscopists could alone prove or invalidate the truth of Mr. Cox's theory, and at present it was really as good a guess as any other.

Mr. LEWIS thought that, on Mr. Serjeant Cox's theory, a mule would have more affinity to either of its parents than the parents had to each other, and should be able to propagate with either the mare or the she-ass instead of being barren. Dr. Richard King had, he believed, written a paper on the difference between the two sides of the head in an individual, and attributed it to the practice of always nursing and carrying the individual when a child on the same side ; one side being thus habitually held lower than the other, the brain settled more on that side and distorted the shape of the head. Not being a physiologist, however, he was not prepared to decide between the merits of the theories of Mr. Serjeant Cox and Dr. King.

Professor PLUMPTREE and Mr. PYCROFT, F.S.A., having made some remarks,

Dr. KAINES did not wish in any way to undervalue any scientific merit Serjeant Cox's paper might possess, but he much regretted the frequent use of unexplained metaphysical phrases, such as "formative force," "nature," "imaginary aura," and the like. It seemed to him

that the old theory of a sperm cell and a germ cell in generating was far more scientific than that now supplied by Serjeant Cox of two germs (each parent supplying a germ which united to form their offspring). While desirous of duly recognising any contribution to physiology which Serjeant Cox might make, Dr. Kaines thought it even more undesirable that new and unfounded hypotheses should be imagined on the generation of animal forms. Biological science was already overweighted by unsound theories and ingenious speculations.

The PRESIDENT considered that the author of the paper had made out his case. What have we on record? In 1677, the spermatozoa were discovered by Harn and Leuwenhoeck. They were subsequently examined and figured by Spallanzani, Dujardin, Cloquet, Bery St. Vincent, Chevalier, Wagner, and Donné, whose labours are recorded in the learned work of Bourgerie (vol. viii). Spallanzani afterwards discovered that the spermatozoa were animalculæ, which are described as endowed with quick movements and great energetic powers. It was next found out that they did not appear before puberty nor in old age; in other words, they commenced with virility, and disappeared when the procreating power ceased. It was also proved that contact was provided, sometimes by a rupture in the envelopes of the ova, sometimes by the existence of a special aperture. That the spermatozoa are brought in contact with the ova there cannot be a doubt, and the result would appear to be that the latter became fecundated. Is it not, therefore, reasonable to assume that such fecundation is produced by the deposit of fertilising matter? Then again, as had been shown, there is generally a physical resemblance between the offspring and one, and occasionally both parents. Sometimes the child resembles the mother, sometimes the father, in virtue, vice, feelings, passions, and mental faculties. Then again, most diseases are hereditary, and the child is liable to be affected with the diseases of both parents.

ORDINARY MEETING,

Held at 37, Arundel Street, Strand, London, on Tuesday, 5th May 1874, at 8 p.m.

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

Elections Announced:—Fellows: Lewis Wells, Esq., F.S.S.; J. Harker, Esq. Honorary Fellow: M. Francisque Michel. Corresponding Fellow: Dr. Anton Bachmaier.

The following paper was read :—

PASIGRAPHY.

By Dr. ANTON BACHMAIER, President of the Central Pasigraphical Society, Munich.

THE paper described the system invented by the author, and called by him Pasigraphy, the object of which is to facilitate communication between persons speaking different languages by the use of figures in place of words. About 5,000 words have been selected as being sufficient for all ordinary purposes, and a number given to each, the same number standing for the same word in any language. Thus, 2,902 would represent *table* to an Englishman, *tavola* to an Italian, *table* to a Frenchman, *tisch* to a German, *zoofrā* to a Turk, *stoll* to a Russian, and so on ; the conjugations, declensions, &c, are in some measure expressed by dots and lines. Dictionaries of the system in various languages are published by Trübner & Co.

Mr. BASIL COOPER spoke in commendation of the object sought, and the manner in which it was proposed to be attained, remarking that Cave Beck, in 1657, and some others had endeavoured to forestall Dr. Bachmaier's invention.

Mr. GEORGE BROWNING also spoke in commendation of the system, observing that Dr. Birch of the British Museum, had agreed to become President of the London Pasigraphical Society, of which he himself was Honorary Secretary, and that a society was to be formed in Persia under the patronage of the Shah.

After some remarks by Dr. CARTER BLAKE, Mr. LEWIS, Mr. JEREMIAH, and the PRESIDENT, the following papers were read :—

THE OXFORDSHIRE GROUP OF "RUDE STONE MONUMENTS." *

By A. L. LEWIS, Hon. Sec. London Anthropological Society.

THE principal monument of this group is situated about four miles north-west of Chipping Norton. It is the circle known as the "Rollrich" to antiquaries, and as the "King Stones" to the surrounding inhabitants, and has lately been described by Dr. Fergusson as an ordinary hundred foot circle, much too small to have served as a temple for the district, of which it is the centre, and probably erected by Rollo in memory of a battle at Hook Norton. This somewhat contemptuous reference to it is a natural reaction from, and is to a certain extent justified by the extravagant manner in which it has been spoken of by antiquaries of the "pre-scientific period." Its diameter is in truth but one hundred feet, and it consists of but a single circle of rough, and much weather-worn stones of different shapes and sizes, the highest being about seven and a half feet, and the lowest about three feet high, their breadth and thickness varying from one to five feet ; of these about

* No. 5 of Descriptive Series.

twenty-six remain upright, but as many of them stand quite close together, and as several others lie flat, and there are besides many stumps and fragments, it seems by no means improbable that this, unlike most of our circles, was completely walled in. There are slight appearances of a low bank of earth close to the stones, but this is very doubtful; and if any larger bank or trench ever existed in connection with them, it has long since been destroyed. The most remarkable point about the circle is therefore the single stone, which stands about 250 feet to the north-east of it, called the "King Stone," which is also the largest, being nine and a half feet high, and from one and a half to five feet broad and thick.

I have so frequently dwelt in previous papers upon the remarkable connection shown to exist between our own circles amongst themselves and some of the Indian circles, by the reference to the rising midsummer sun, which each contains in the shape of outlying stones or otherwise, that I will only on the present occasion point out that in this case that reference takes, as at Stonehenge, Dance Maên, in Cornwall, and some other places, the form of a single stone placed in a north-easterly direction.

With respect to Rollo, it is possible that he may have fought a battle near the stones, and that his name may thus have got mixed up with them, the actual connection being of about the same description as that of Cæsar or the devil with the various works in different parts of the world attributed to them. It is obvious that the stones were a landmark at the time of the division of the counties, as the boundary of Oxford and Warwick is marked by a road which passes between the circle and the "King Stone." The parishes of Great and Little Rollwright, are also named from the stones, or the stones from the parishes. According to Dr. Stukeley, the ancient name of the latter was Rollendrich, which he says should be spelt Rholdrwyg, meaning Druids' wheel or circle.

About three hundred yards to the south-east of the Rollrich stand five stones, called the "Five Knights," which vary from eight to eleven feet in height, and one to four feet in breadth and thickness. As they now stand they enclose a small square space, three of them standing in a contiguous line facing south-easterly, one about four feet behind them, and the fifth forming the north-easterly side of the enclosure; but it is probable that the latter may have been supported on three of the others, and have fallen into the position which it now occupies. The ground enclosed by these stones is about two feet higher than that outside them.

A very similar monument, called the "Hoarstone," exists in the parish of Enstone (to which it gives name), about four miles south of Chipping Norton, and stands at four cross ways, showing that it also was at least a landmark, if not a place of considerable resort, at the time the present roads and enclosures were laid out. This may of course be a very modern date, but the roads probably follow more ancient pathways. The Hoarstone consists of three upright stones, enclosing three sides of a square of three to four feet; two

of them are from eight to nine feet high, and from three to six feet in thickness and width; the third is only three feet high, but a fragment which lies near, and probably belonged to it, would make it nearly a match for the others. The capstone which probably crowned them lies within two yards, and is shaped somewhat like the ace of hearts, its diameters being from seven to eight feet, and its thickness about a foot and a half. The space enclosed by the upright stones is also some two feet higher than that outside, and the open side is towards the south-east.

If my ideal restoration of these two monuments be correct, they belong, like Kit's Coty House in Kent, the Spinster Stone in Devonshire, and perhaps Lanyon Quoit, and the Trevethas Stone in Cornwall, to the class called "free-standing dolmens." Mr. Lukis states, and, as I believe, from such inspection as I have been able to make personally, states correctly, that there are no "free-standing dolmens" in France; but these monuments differ entirely from the generality of the French examples. It is a very usual suggestion that they have formed parts of sepulchral chambers and were formerly covered, and if only one of the kind existed, this view could hardly be controverted, but it is not likely that in so many instances a mound of earth of the size requisite to cover these monuments, which are from eight to fourteen feet high, should have been removed, and that in each case a number of additional stones, which would be required to make them suitable for sepulchral chambers, should have been removed also, leaving always three upright stones to support one capstone, with the occasional addition of one or more "honorary" uprights, added perhaps to make up some mystical number, since they could have supported nothing. I consider, therefore, that their present condition is very much the same as that in which they have always existed, and that as they are unfitted for sepulchral chambers, and that as in one instance at least interment has been proved not to have been made beneath them, their object must have been memorial or sacrificial—perhaps both. If the latter, the fact that what appears to be their front generally faces between south and east may indicate that they were principally used in the winter, when the sun rises in that direction, in which case the covering stone would to some extent afford the protection against the weather which Dr. Fergusson considers so essential; and if the "Five Knights" and the "Hoarstone" were places of sacrifice, it would also obviate his objection to the insufficiency of the "Rollrich" for the needs of the surrounding district. It must be remembered that I do not suppose the sacrifice (if any) to have been offered on the top of the capstone, but on a small altar in front of the dolmen, or perhaps on the raised mound enclosed by it in the cases of the Oxfordshire monuments. Dolmens of this kind are so closely connected with some of the larger circles (like side altars in Romanist cathedrals) as to render it much more probable that both were constructed by the same people, than that the circles were built, as Dr. Fergusson supposes, by a race coming from the north, and the dolmens by

another race coming from the south; and the manner in which they are connected with those circles renders it equally unlikely that they could in such cases have been used for, or formed part of, sepulchral monuments.

The old road called the Akeman Street passed about four miles south of the Hoarstone, and within a few miles of this group is at least one important earthwork; but there are no other rude stone monuments within thirty miles, except a single stone which I heard of, but could not see.

THE KENTISH GROUP OF RUDE STONE MONUMENTS.*

By A. L. LEWIS, Hon. Sec., L.A.S.

THE eastern side of England is generally destitute of those rude stone monuments of which so many are to be found in the western half of the island. Nor can this be entirely attributed to the scarcity of building stone which undoubtedly prevails in some parts of the eastern counties, because we know that the builders of these monuments often transported their materials from considerable distances, even when the country round the scene of their operations abounded in suitable stone. In Kent, however, in the extreme south-eastern corner of England, nearly 150 miles from any other monuments of the kind (for I do not now speak of tumuli, which, whether with or without stone cists, are to be found all over the world), we find a numerous and interesting group of dolmens and other monuments clustered within the space of a few miles around the little town of Aylesford, and possessing some peculiarities of structure, which, if not altogether unique, are worthy of some consideration.

The most widely known of these is "Kit's Coty House," which consists of three upright stones (from 3 to 7 feet long, $1\frac{1}{2}$ to 2 feet thick, and $6\frac{1}{2}$ to 8 feet high), placed so as to form, in ground plan, a letter H (H), and supporting a covering stone about 14 feet long, 9 feet broad, and $1\frac{1}{2}$ to 2 feet thick; these (particularly one of the supporters) are much pitted with holes, but whether partly artificial or not I am not able to say. It is hardly possible to believe, on looking at this monument and the ground around it, that it was ever covered; and if it had been intended as a burial chamber, the middle stone would certainly not have been placed as it is, in such a manner as to cut the chamber into two niches, neither of which would be of fit proportions for sepulchral purposes, but would have been placed so as to form the third side of a square. The Rev. L. Gidley suggests that Kit's Coty House was sacred to Kêd, Ceridwen, or Ceres, and was used as a cell in which aspirants to Druidic honours might undergo part of their probation, as described by Taliesin. Kit's Coty House would, however, be a very inconvenient place of confinement, for the same reasons that would make it inconvenient as a place of burial; but

* No. 6 of Descriptive Series.

the Trevethas Stone in Cornwall might very well have served some such purpose. The road from Aylesford to Kit's Coty House leads up to it in such a manner as to suggest that it must at one time have been much resorted to. The road is, no doubt, modern, but probably follows the line of an old trackway.

Between Kit's Coty House and Aylesford are some stones called the "Numbers," which lie in a confused heap, and the original plan of which it would be very difficult to ascertain. Dr. Stukeley drew a fanciful restoration of them which strongly resembled a pigsty; but I think they are most likely the remains of a chamber devoted to sepulchral purposes.

In the same neighbourhood were also some single stones, which once stood upright; and on Bluebell Hill, above Kit's Coty House, Mr. T. S. Wright discovered some interesting sepulchral remains.

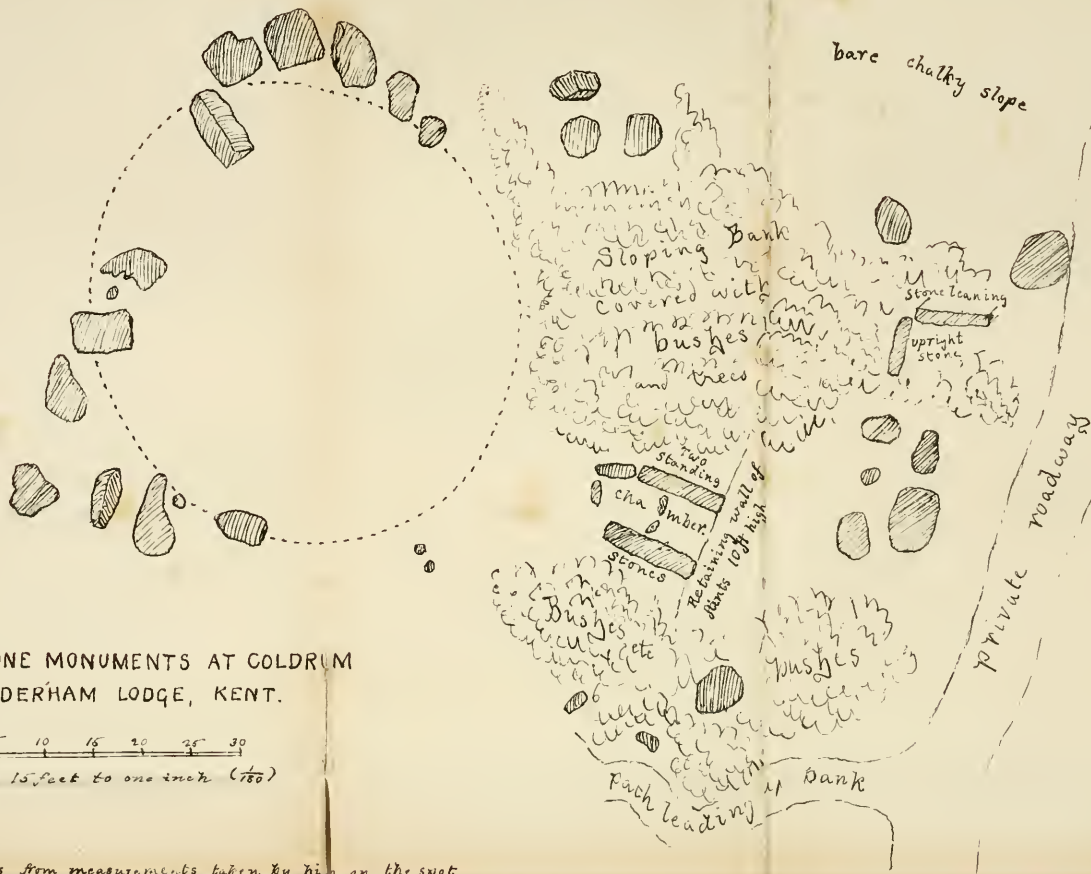
On the opposite side of Aylesford to Kit's Coty House, and about eight miles from the latter, are some much more extensive remains, which have no local name, but are situated in Addington Park, the enlightened owner of which (Colonel Stratford) is, I understand, very zealous in preserving them. They are described by Camden (Gough's ed., 1806) as circles, and some sketches are given which, as frequently happens, do not bear the slightest resemblance to the originals. The first group which presents itself to view on entering the park consists of some stones which, though now mostly fallen, in all probability formed a dolmen somewhat resembling Kit's Coty House, that is to say, three upright stones supported one large flat one, 14 ft. 6 in. by 9 ft., at a height of from six to seven feet above the ground. Leading from these stones, in a direction slightly south of west by compass, is an avenue marked by two lines of stones, which would seem to have been from 5 to 7 feet high, and of proportionate breadth and thickness. This avenue is about 45 feet wide at the extremity next the dolmen, but gradually contracts to about 30 feet in width at the furthest point from the dolmen to which it can be traced—a distance of about 180 feet. There are indications that this avenue of stones was flanked by a trench which passed round behind the dolmen, giving the plan of the structure the aspect of a pair of sugar-tongs. There are also three or four stones scattered about which are, I think, only fragments removed from their places.

About 350 feet from this group, and in a north-westerly direction, is another collection of fifteen stones, and one or two fragments standing and lying as close to one another as possible, and forming a confused mass of which it is difficult to discover the original plan. I am inclined to believe that they also formed a dolmen of three or four upright stones (from six to seven feet high, and from two to five feet broad and thick) supporting a capstone (twelve feet long, eight feet wide, and one and three-quarters thick), and that the fall of the latter has caused the present confusion; this dolmen would have been backed on the north-eastern side by a semicircle or horse-shoe of upright stones, and might have had a flat one suitable for an altar in front of it on the south-western side, as also might the

North by Compass



The dotted line indicates the approximate line of the oval
All the stones lie flat except those specially marked



RUDE STONE MONUMENTS AT COLDRUM
OR COLDERHAM LODGE, KENT.

0 5 10 15 20 25 30
Scale 15 feet to one inch ($\frac{1}{100}$)

first dolmen mentioned, stones suitable for the purpose and in a convenient position forming part of each group. I am informed that a similar stone existed at one time in front of Kit's Coty House, but was buried to get it out of the way; Stukeley represents the latter as standing at one end of a long barrow, with a flat stone lying at the other end, but no trace of any barrow remains now.

We have now to consider the object for which these three dolmens (if dolmens they all were) were erected. Dr. Fergusson would say they were memorials of battles fought in the sixth century after Christ, others would say they were sepulchral chambers of perhaps the sixth, or even the sixtieth, century before Christ. That no interments could have been made in them in any form in which it is reasonable to believe they could have been erected is obvious, nor is there any reason to believe that they were ever covered with earth, or intended to be so covered; bodies may have been buried beneath them, but this point can only be decided by excavation; in the parallel case of the Spinster Stone in Devonshire, it has been shown that the ground beneath had not been disturbed. If not intended for sepulture, they must almost certainly have been intended for purposes of memorial, sacrifice, worship, or assembly. Dr. Fergusson unhesitatingly says for memorials of battles and places of burial for the slain: the latter use, as we have already seen, is very doubtful, and the former is no less so; but as I have elsewhere gone thoroughly into Dr. Fergusson's statements, it will be unnecessary to do so on the present occasion. My own belief is that they were places of worship or sacrifice; I will not now, however, recapitulate the arguments by which in former papers of this series I have sought to establish this view, but will confine myself to pointing out that, whereas the circles have a uniform reference to the north-east, and Kit's Coty House and most other "free-standing" dolmens face to the south-east, the two dolmens in Addington Park would, according to my restoration, have faced towards the south-west: this may at first sight seem to raise a difficulty; but, on the one hand, the worshippers standing with their faces to the altar would also face the rising sun in summer; or, on the other hand, these particular stones may have been used only for the worship of the setting sun in winter. According to a correspondent of the *Daily News* (7th January, 1873), there is a temple of heaven at the south of Pekin, where sacrifices are offered at the winter solstice; an altar of the earth at the north of Pekin, where sacrifices are offered at some other period; an altar of the sun at the east of Pekin, where sacrifices are offered at the vernal equinox, and an altar of the moon at the west of Pekin, where sacrifices are offered at the autumnal equinox. It will be seen, therefore, that the supposition of different altars for different seasons is not a mere invention of my own, to bolster up a faulty theory, but has a precedent in actual practice. It may be stated, in passing, on the same authority, that these temples are devoted to the state religion of China, and that that religion is a compound of phallic, sun, and nature worship. It may also be remarked that the

winter altar is here stated to be on the south of Pekin, and that Herodotus says (*Euterpe* cxxi.), of two statues in the temple of Vulcan at Memphis, "One of these looks to the northward, and is adored by the Egyptians under the name of Summer; the other, facing the south, is altogether neglected, and goes by the name of Winter." Our own circles have an almost uniform reference to the north-east, where the midsummer sun rises, and our "free-standing" dolmens to the south-east and south-west, where the mid-winter sun rises and sets.

The most extraordinary monument of the Kentish group has, however, yet to be spoken of, and has not, so far as I know, ever been described before.* It is situated at a farm called Colderham Lodge, between Addington Park and Snodland station. On the summit of a steep slope, some twenty feet or more above a private roadway belonging to the farm, lie thirteen stones, almost touching each other (the largest being 8 feet by 4 feet by 3 feet, and the smallest 3 feet by 2 feet by 1 foot), besides some fragments. These seem to have formed part of an oval, the diameters of which would have been about 45 and 50 feet, the longest diameter, as at Arberlows Ring, in Derbyshire, running about north-west and south-east. Some of the stones have fallen inside, and some outside, the line of the oval, and one on the south-west side either stood ten feet outside it, or has been dragged to that distance. About fifteen feet from the oval, on the north-east side, three stones or large fragments lie in a little copse on the edge of the slope, which, if any of them are in their original position, follow the rule for outlying stones which I have so often shown in previous papers to exist in our English circles. The remarkable point about this circle is, however, that on the south-eastern side no stones remain, if any ever existed there, and that about twelve feet from the line where they would have stood are the remains of what was, no doubt, a large sepulchral chamber. Two stones (9 to 10 feet long, 5 to 7 feet high at the greatest height, and $1\frac{1}{2}$ to 2 feet thick) stand about five feet apart, forming the sides of the chamber; the remains of stones which form the end nearest the circle also remain *in situ*, but the other end projects over a small precipice about ten feet in depth, caused by the slope before mentioned having given away, or having been dug away, to such an extent that a retaining wall of flints has at some time or other been built to keep the larger stones from falling. In a little copse at the bottom of this precipice are scattered ten stones (varying in sizes from $2\frac{1}{2}$ feet by 2 feet by 1 foot, to $8\frac{1}{2}$ feet by 7 feet by 2 feet); these have probably fallen or been thrown

* On this point a correspondent of the *Building News* says the Coldrum monument, above alluded to, was first discovered by the Rev. Mark Noble, about half a century since, and re-discovered by the Rev. Lambert B. Larking, vicar of Ryarsh. The only description published appears to have been by Mr. Douglas Allport, in a little book called "Round about Kit's Coty House," a work which has never come under my notice. This description, as quoted in the *Building News*, would, however, lead to the inference that the stones above and below the cliff formed one circle surrounding the dolmen, which was certainly not the case.

from above, and may have formed part of the circle or of the chamber; two of them indeed stand in a half-upright position at right angles to each other (thus 7), but I think they must either have fallen in this manner or have been placed so at a later period. I was told that a skull had been dug up in this chamber, some years ago, but was unable to discover what had become of it.

Dr. Sinclair Holden has described to us an Irish burial chamber, round which stood an oblong enclosure of stones, and other archæologists have (not always correctly) described sepulchral dolmens as being surrounded with circles of stones; but this is, so far as I know, the only instance in which a circle and a sepulchral chamber, while clearly independent of each other, exist in such close proximity. The facts that the stones of the oval nearest to the chamber have disappeared, and that the tumulus which probably covered that chamber would also possibly have trenched on the area of the oval, might lead to the idea that the chamber had been constructed at a later date, and perhaps out of the materials of the oval, in which case the oval should surely be assigned to an earlier period than that of the Danish incursions, or even that of King Arthur, though not necessarily to some remote prehistoric era. But it is at best a matter of conjecture even to assume that the circle and chamber were erected at materially different periods, and I will therefore say, in conclusion, that I see nothing in any of the monuments I have described to-night to alter the opinion I have already expressed (together with my grounds for holding it) in former papers, namely, that most, if not all, the monuments of the kind in this country were erected by some of the peoples whom the Romans found here on their first arrival.

DISCUSSION.

The thanks of the Meeting having been voted to the Author,

Mr. PYCROFT, F.S.A., said there was no doubt that stones were set up in Denmark as tombs and memorials of battles. He thought the Wiltshire monuments were built by the Belgæ. It was not generally known that there was "a serpent walk" across Salisbury Plain, from Stonehenge to Devizes.

Dr. CARTER BLAKE could not agree with Mr. Pycroft's *dictum*, that the Belgæ were the builders of stone circles. Such structures were found in regions such as the Orkneys and India, where no Belgæ were proved to exist. The ancient Wiltshire population were purely Celtic, yet the Belgæ were described by classical authorities as modified Celts; and it was strange that the most typical stone monuments should be found in an area outside that of the Belgæ. Surely the builders of the large barrows, who, as Dr. Thurnam had proved, had for the most part long skulls, were not to be identified with the Belgæ, but rather with the populations of South-west Ireland, with whom they agreed in cranial character.

After some remarks from Mr. JEREMIAH,

The PRESIDENT said : According to Dr. Plott, the name Rollrich may mean "stones of King Rollo," or "Rollo's kingdom." What he must mean is that it may signify "King Rollo," or "Rollo's kingdom," because no part of the compound can mean "stone." It is said that this ancient monument was put up in memory of a victory gained by Rollo the Dane. According to popular tradition, the king and his army were changed into stones. Rollo became the king stone, his five knights the knight stones, and the rest of the stones represent the private soldiers. But the assertion as to Rollo neither agrees with the *locus in quo* nor the *tempus in quo*. The Danish knight is said to have first set foot in the Hebrides ; and he probably afterwards landed in the north of England. There is no evidence that Rollo was ever in the district of the battles between the Danes and Saxons, in the neighbourhood of the Rollrich. The engagement at Hogs Norton took place in 917, that of Sherston a hundred years later ; whereas, according to the Saxon annals, Rollo made inroads into Normandy in 876, which was not long after his appearance in England. As a Gotho-Teutonic compound, the name might mean "the giant, hero, or king circle ;" but the appellation is more probably of Celtic origin. The name of the village, which is said to be derived from that of the monument, is in some records written *Rollendrich*, and in Domesday *Rollendri*. Dr. Stukeley's etymology is perhaps the most reasonable. He writes *Rholdrwyg*, which he renders "the wheel or circle of the Druids ;" but he suggests also the old Irish *Roilig*, "the church of the Druids." The latter, however, signifies simply "the church," not "the church of the Druids ;" and no modern Gaelic *roileag*, *roileig*, signifies both a church and a burying-ground. It is also possible that the monument may have first been named by the Celts *Röhl*, i.e., "the circle ;" then the place may have been called *Rollendri*, "the dwelling (by the) circle," of which *Rollrich* may be a corruption. Dr. Stukeley says the diameter of the Rollrich is thirty-five yards, which is exactly equal to the outer one at Stonehenge ; and, according to Godfrey Higgins, the great temple at Rollrich is surrounded with sixty upright stones, which, as well as the outer circle at Stonehenge, are the Oriental cycle of Vrihaspati (60). It may be here noted that *Vrihas-pati*, or rather *Brihas-pati*, was a deity, originally the Lord of Prayer, but that the name was afterwards applied to the Regent of the planet Jupiter, and Preceptor of the Gods. The term "hoarstone," mentioned in Mr. Lewis's paper, signifies "stone of memorial," "land-mark," "boundary," whether of a public or private nature, and the term has been in use in almost all ages since the patriarchal era. It is found in composition of at least seventy local names and words in Great Britain ; as hoar-grave, hoar-hazel, hoar-law, hoar-maple, hoar-oak, hoar-thwaite, hoar-withy, hoar-worth, &c. The word is found, in some form or other, in Greek, Latin, the Italic languages, the Arabic, and in most of the Gotho-Teutonic languages and dialects, in all which it usually signifies a bound or limit.

Mr. LEWIS, in reply to Mr. Pycroft and Dr. Carter Blake, said it

might be a question whether the Belgæ came to Britain from the Continent, or went to the Continent from Britain. It was impossible to attribute all the rude stone monuments to any one race, but there was every reason to believe that a common influence had been in some way at work upon the different races by whom they had been erected in the counties extending from India to Britain and Scandinavia.

ORDINARY MEETING,

*Held at 37, Arundel Street, Strand, London, W.C., on Tuesday,
19th May, 1874, at 8 p.m.*

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

Elections announced :—Fellows : J. M. HARRIS, Esq., and H. HUDSON, Esq.

Presents announced :—Current number of “Proceedings of Society of Biblical Archæology,” from the Society.

The PRESIDENT announced that he had received a letter from one of the Vice-Presidents, Capt. Richard F. Burton, stating that he had just returned from digging a newly-found Castellieri, containing pottery, animals' teeth, and bones. The same letter also mentioned the discovery of a tomb near Rovigno, which Capt. Burton described as follows :—“Very Etruscan in shape, containing a well 29 feet deep ; two cippi, not inscribed ; doorway, with hole for hinge (8 feet by 4), leading to passage (24 feet long), and circular dome-shaped chamber cut out of dolomite, and showing signs of pick. Tomb stands cut in rock. Tombs probably below. Roman lamps found in it, and two pierced clay balls—people say, net-weights, but probably spindles.” Rovigno or Trevigno is a seaport town on the west coast of Istria, standing on a rocky promontory, about 40 miles S.S.W. of Trieste. It is celebrated for its fine stone, which from time to time has been exported to Venice for building purposes ; and it was, from the year 1330, for a considerable time subject to the Republic.

The following paper was read :—

KELTIC ELEMENT IN THE LYCIAN INSCRIPTIONS.

By EDMUND CROGGAN, F.L.A.S.

THE Lycian obelisk inscriptions are characterized by clauses containing uniliteral, biliteral, or triliteral words, connected by agglutinative consonants, the study of which is important from their

so largely containing the roots or elements of language. These roots develop themselves in varied forms, according to their relative positions, and the language presents great complexity, from the secondary forms assumed by the vowel initial words, from the varying terminations in the connected clauses, and from the augmenting or strengthening consonants that are commonly prefixed to the words in forming combinations. The force of these observations will be illustrated by enumerating the vowel roots. The vowel *a* is the term *high*, and appears with this meaning in compound words, as *azu*, high farms, *atu*, high inhabitants, but it most commonly appears in the secondary form of *ma*, as in *zewēma*, the high king. In some cases it suffices a consonant, taking the forms of *al* and *ar*. The vowel *ē* has the meaning of *low*, and takes the secondary forms of *pē*, *rē*, *sē*, *wē*, *yē*. The vowel *ī* has the meaning of *fine*, being a natural sound conveying the idea, and, by prefixing the consonants, assumes the same variety of forms. The vowel *o* is the term for *out*, and, by prefixing or suffixing a consonant, takes the secondary forms of *lo* and *wo*, and of *of*, *om*, *os*, *ot*. The vowel *u* is the verb to *breathe*, and the substantive verb to *be*, the noun for *beings* or *inhabitants*; with a qualifying adjective it is the name of the Deity, the *Hu* of Bardic theology; the noun *ue* is the term for sheep, the sacrificial animal, and the vowel is also from this connection the term for wool. By a combination of the vowels *o* and *u*, the word *ou*, to offer, is formed, in its literal primary signification to *breathe out*, to express a voluntary offering. In giving a broad sound to the adjective *ma*, high, by suffixing *w*, *maw*, great, is formed. By a compound formed from the elements *aw* and *a* the word *awa*, broad and high, is formed, the term alike for sky and robe. From the roots contained in the Lycian being uniliteral or biliteral arises the singular expressiveness and extraordinary condensation of meaning in the Lycian language. The latter quality is increased by the contractions common to the language, and by vowel words being joined by crasis. In this way compound words are formed, or one word joined to another without increase of volume, as in *Aoûru*, the inhabitants of *Aoûre*. In some cases, by elision of a syllable, the compound is shorter, as in *Winu*, the inhabitants of *Arina*, the linguistic operations in the production of which compound are: first, the joining of *u*, inhabitants, by crasis; second, elision of the first syllable; third, the reduplication of the final vowel in the initial *i*; but, to show the contractions of the language, this compound term in two places undergoes a further contraction, where the contraction *nu* stands in place of *Arinu*, and in this way two letters in the Lycian express what twenty letters are required to do in English. It is necessary to make these observations on the structure of the Lycian language in order to account for the small relative space the Lycian words occupy in the transcript, in comparison with the English.

The great variety of forms assumed by the verbs and nouns is a marvellous development of language, a striking example of which presents itself in the verb *ro*, to offer, the reflective form of which is

roôôûe, to offer for him. In an opening line of the inscriptions this reflective verb assumes the form of *trôôûe* by prefixing a strengthening consonant, whilst in a following line the same word appears as *zroôôûe*, and in another line, by contraction, it takes the form of *zroû*, and in a following line it resumes the form of *trôôôûez*, with the slight variation of the sibilant added to the verb. The variation in the initial consonant prefixed to the verb is governed by the initial consonant of preceding words, and throughout the inscriptions the sounds of initial consonants are reflected from one word to another. In the study of the inscriptions it was therefore essential to eliminate the reduplicated sounds attached to the words, and to regard them etymologically only in their independent forms. By observing the law of reduplication, the force of the two wedge-shaped characters was apprehended by the translator—V, *V*—the first representing the sound *gw*, the second *wu*.

The mutation of initial consonants is another feature of the language, as will be seen by the following remarks. The initial dental letters *t* and *d* are interchangeable, as in the phrase *medo to*, let the houses give, the independent form of the second word being *to*. An initial dental letter commonly changes to the guttural when one word is joined to another, as in *kodê*, houses and lands, the words forming which are *to* and *dê*. The combination of *so* and *tre* forms *sokre*, spread cities. The liquid *l* changes to the sibilant in the combination *komezeya*, dwelling in the towns, formed of the words *kome* and *leya*. The liquid *l* changes to the labial *f* in the compound *gafales*, towns of Gale, formed of the words *gale* and *les*; in the compound term *mafele*, higher fringed (garments), formed of the words *ma* and *lele*; and in *fate*, hand-make, formed of the words *la* and *te*. The latter example is most interesting, as showing the primary form and meaning of the Latin verb *facio*. It is somewhat curious that in our word *manufactory* we have two hands prefixed, the one of which is fossilized.

The law of metathesis is operative in a few passages of the inscriptions, as in *troyêle*, the words composing which compound, in their uncontracted independent forms, would be *trôôôûu*, *leyê*, the Troes in the towns. From the action of the same euphonic law the pronoun *aê*, all, takes the form of *êa*, as in *êanrp*, all the city territories, &c.

In the euphonic mutations of the language is to be noticed the change of the final vowel *e* in a word to *a*, where the word enters into a compound, as in *wêitêla*, all the towns, formed of the words *wê*, *itê*, *le*, as in *witra*, twist flax, formed of *wi*, *tre*. A change of vowels takes place by assimilation, as in *nêlêdê*, the men of the towns and lands, formed of the words *na*, *lê*, *dê*, as in the phrase *sêwêwê*, give the king tribute of silk, formed of the words *sawa*, *wê*.

All the relationships of nouns in the obelisk inscriptions appear to be expressed by the genitive case. The inflections are *oâ*, and its contractions *o* and *u*, the long *ê*, and the inflection of *a* in some nouns ending in *e*. To this general statement an exception apparently appears in the locative termination *ya*; but this termination, which

also appears in the Zend, is in its origin a genitive case. An exception also appears in two or three terminations in *i*, inflected in nouns ending in *e*, with the dative meaning of *to*; but whether this latter is to be regarded as a case inflection is doubtful, in consequence of the euphonic mutation of *e* to *i*, which appears in another part of the inscription. The case inflections are comparatively few in the inscriptions, the nouns generally appearing in the simple nominative form. The nouns that are inflected are personal, or nouns of locality. In the following list of inflected nouns the relationship expressed by the termination is rendered in English by the prepositions used in the translation to express the sense of the original:—

Nominative.

Zawe,	the king.	sēwē,	of the king, <i>and</i> for the king.
Pas-aū,	kings.	pasōūwū	of the kings, also.
"	"	paswo	" (contracted form).
Swertē,	decree.	swertu,	by the decree, according to the decree.
Adre,	tomb.	adru,	of the tomb.
Arppagos,	Harpagus.	Arppagooū,	of Harpagus.
Lade,	wife.	ladē,	for the wife.
Trāmele,	Tramele.	trāmelē,	of Tramele.
Iua,	the High Being.	iuē,	for the High Being.
Nē,	heaven,	na,	of heaven.
Sukuna,	queen.	sukunē,	for the queen.
Zre,	Cyrus.	zri,	for Cyrus.
De,	God.	di,	to God (sonemanadi, to spread adoration to the God of Heaven.)
"	"	ki,	to God (mutation of <i>di</i> in <i>kiaramu</i> , to the God the Being around; tomb inscription, Cadzanda.)
Lē,	towns.	leya,	in the towns.
We,	lands.	weya,	in the lands.

It is to be noted that where a preposition is used in the inscriptions to express the condition of nouns, the latter are not inflected, but retain the nominative form. It is also to be noticed that grammatical uniformity is not regarded in giving the title of king of kings, as in the first line of the north-east inscription, the nominative plural *pas-aū* is used, the genitive being conveyed by the status constructus, whilst in other passages the genitive *ōū* is inflected in the singular *pasa*, and the plural *u* termination added.

The Lycian idiom uses the singular form of a noun indifferently with plural forms, when the sense is plural. The following singular and plural forms of nouns are given:—

<i>Singular.</i>		<i>Plural.</i>
Pas-a,	king.	pas-aū.
Ape,	son.	ēpe.
Tedēeme,	son.	tedēemē.
S-a,	farm.	sē, ssē.
Tade,	father.	eyade.
Aura, ora,	gold.	orē (gold coin).

<i>Singular</i>		<i>Plural.</i>
E,	he, each.	aē (all).
Tede,	child.	tedeyē.
Gina,	brother.	ginawe.
Chortta,	sister.	chorttge.
Edēwe,	daughter.	edēwē.
Ewu,	niece.	ēwuwu.
Na,	man.	sēina.
Una,	woman	ūna.
To,	house.	te.

The Lycian verbs have commonly nouns for their base, as *ade*, to give, the base of which is *da*, land, as *towes*, to dwell, the base of which is *to*, house, as *tole*, to give, applied to gifts from houses in the towns, which has for base two nouns, viz., *to*, house, and *lē*, towns. The nouns are used verbally in the agglutinative clauses without any distinguishing prefix or termination, as in the phrase *mēdoto*, let the houses give. Several of the verbs are the contractions of phrases, as *itēfu*, to present, having for its base the words *itofeu*, let each offer sacrifice; *pddu*, to offer, from the words *po*, *u*, offer sacrifice; *wēlē*, to see, from the words *lu*, light; *ele*, going. The last etymology may be questioned, but the formation of the verb in this manner is in accordance with Lycian analogies, that elide the first initial consonant in the formation of compounds. A few of the Lycian verbs are pure verbal roots, the natural expression of action, as *te*, to extend, to make; *er*, to make effort, to will; *ēre*, to make; *kē*, to give; *wo*, to draw out; *ēlē*, to go, &c. The subject noun is commonly prefixed to the biliteral verbs, as *lekē*, let the towns give; *nekē*, let the men give; from which is formed the noun *nēke*, gifts, the distinction in the Lycian noun and verb being made by the accented syllable. The passive voice is formed by the suffixing the verb *te*, as in *eazate*, all are commanded; *pzzoāte*, it is high commanded by him, the passive voice being expressed by *command made*; but in other examples of the passive, the substantive verb *u* is suffixed, as in *ēsēyu*, to be dwelling, *legu*, to be placed. The substantive verb *u*, to be, that is, is embodied in the passive verbs noted, and appears with the meaning of *to breathe* (the primary sense of the substantive verb) in the term *ereyu*, sculptured, literally *to make to breathe*, and in a remarkable phrase contained in the epitaphs, viz., *uwelatedawa*, that is in the sight of the God of the sky, to denote posterity. In the obelisk inscription no examples of conjugation are presented, the first person singular indicative *mra*, I speak, being the verb in its undeveloped form, which in the Zend expands into *mraomi*. From the character of the inscriptions the form of the verbs is the imperative, the infinitive, and the participle, the latter being marked by the short vowel, or difference of accent.

The analogies of the Lycian with the classical languages are apparent, as in *ga*, land (mutation of *da*), γη, earth; *do*, to give, Greek, δω; *to*, *do*, house, Greek, δμος; *ge*, *ges*, offspring, with old Greek, γερω; *ma*, high, with Greek μα, used in appeal to High God; *ou*, gen, of him, with Greek, ὅς οὐ; *kome*, dwelling, with Doric

κωμῆ, village; *aur*, gold, Latin, *aurum*; *po*, to place, Latin, *pono*; *fate*, to make, Latin, *facio*, *factum*; *sele*, heavens, Latin, *celum*. The analogies with the Welsh and Cornish are striking, as in *ape*, son; *tade*, father; *awa*, sky, Welsh, *awyr*; *da*, ground, Welsh, *daear*; *dde*, to separate, Welsh, *de*; *er*, will; *pen*, supreme; *so*, spread; *aur*, gold; *ala*, produce, Welsh, *alav*; *ar*, above; *ddele*, blinding, Welsh, *dall*; *wdele*, sight; *dele*, to go, Welsh, *elu*; *fe*, outer; *gita*, goat, Welsh, *giten*; *ke*, to give, Welsh, *ced*; *le*, towns; *la*, hand, Welsh, *llaw*; *mawe*, great, Welsh, *mawr*; *maon*, stone, Welsh, *maen*; *ne*, heaven; *o*, out; *ane*, spirit, Welsh, *an*; *ro*, to offer, Welsh, *rho*; *se*, stars; *sgga*, garment, Welsh, *sgan*; *ted*, spread; *tre*, cities; *thui*, family, Welsh, *tylu*, Cornish, *teilu*; *adro*, around, Cornish, *adro*; *rep*, city, territory, Cornish, *ryp*, field, &c., &c.

In noticing the analogies with the classical languages, it should be observed that the Lycian is the primary form containing the idea involved in the words, as in the case of the Zend *mru*, Lycian *mra*, to speak literally, to *ray around*, as in the Zend name *Uramus*, which in Lycian is the *Being that is around*, as in the Welsh *Iau*, Jove, which in Lycian is *Iua*, the *High Being*.

The anthropological bearings of the Lycian language are of high interest, as it elucidates the ethnological questions respecting the races that inhabited primitive Greece, inasmuch as it is the key to the names of historical races. It gives an answer of the ancient world, engraven in their oldest form of language, respecting the origin of man, and it speaks of a people who preserved a pure Theism, handed down by tradition from the primitive, patriarchal period. The name *Arian* is a form of *arina*, and this name signifies the men of the High (God), corresponding to *Danai*, the men of God. The prefix *ar*, in *Arian*, is of the same meaning, as in *arafazeyē*, temple, which signifies the *high dwelling on high*, that is, God dwelling on high. The name *Leleges* signifies the offspring of the towns, corresponding to the word *ppele*, the sons of the towns. The names referred to show an identity of race and religious belief betwixt the Troes and the primitive inhabitants of Greece, existing before the invasion of that country by the Hellenic races. The word for man in Lycian, *na*, is the genitive of *ne*, heaven, and occurs only with these meanings. The etymology of a word may not be sufficient to settle the question of the origin of man, but it enlarges the circle of evidence, and gives with no uncertain sound the belief of man on this subject, in the infancy of language. The religious sentiment is entwined in the Lycian language, and the terms for temple and altar express the pure Theistic belief of the Lycians, a people to be regarded with admiration for their invention of classical art, and with veneration for their pure faith, handed down to them by tradition from the ancient world.

In connection with the ethnological terms that are remarked on in a preceding paragraph should be considered the names Argos and Pelasgi. The prefix *ar*, in the former in a previous example, has been stated to mean *high*. The final syllable, *gos-houses*, is a mutation

of *to*, which frequently appears in the obelisk inscriptions. The term city is expressed in Lycian by the word *houses*, the word having this signification in a proper name. The meaning of the name Argos, is *the high city*, equivalent to *the capital city*. In one of Professor Anthon's notes, in Lemprière's "Classical Dictionary," it is remarked "The term Argos appears to have been an old Pelasgic word, signifying *kingdom*. Hence the name is met with in different parts of Greece occupied by the Pelasgi." The etymological relationship of these names, Argos and Pelasgi, is apparent. The name Πελασγοί was more anciently written Πελαργοί. The first syllable, *pel*, frequently occurs in the obelisk inscriptions in the contracted form of *pl*, and is a contraction of the Lycian word *ppe*, the literal meaning of which is, *the sons of the towns*, the Lycian idiom for expressing *the people of the towns*. The term Pelasgi, therefore, signifies *the people of the towns of Argos*, the pre-Hellenic equivalent for Argivi. Herodotus says "the Pelasgi spoke a barbarous language," and adds, "if the whole Pelasgian race did speak a barbarous language, then the people of Attica, who are descended from them, must at the time they changed into Hellenes have altered their language." In this way he plainly distinguishes the two races and languages. The diffusion of the Pelasgian race into Italy, on the shores of the Hellespont, and Asia Minor, was the natural consequence of the Hellenic invasion.

The investigation of the Lycian language by the Cymric was suggested by the enquiry into the name *Cinyres*—the king of Cyprus, occurring in Mr. Gladstone's "Homeric Studies," which the author supposed to be of Phœnician origin. It occurred to the writer that the syllables *cin* and *res* were forms of the Welsh *cyn* and *rhi*, which appear as prefixes in the names of British kings, and that the name Cinyres was *titular*, equivalent to the Welsh *penteyrnez*—*the supreme of princes*; and this etymology is confirmed by the word *re* being applied to the sons of Cyrus in the obelisk inscriptions. The light struck from the name Cinyres illustrated the Greek legends, referred to by Archdeacon Williams in his "Gomer," that are mentioned by Hecatæus, which indicate a community of language existing between the Britons and the early inhabitants of Greece, and which, in a singular way, associate Britain and Lycia, the "Delphic legend saying that Olen, the first prophet of Phœbus, was a Hyperborean (Briton), whilst the Delian myths say that Olen was a Lycian." The light struck from the name Cinyres directed this enquiry into the Lycian language respecting its elements, and its relation to other members of the Aryan family of languages.

The Lycian language is the key of the names that lie at the base of Indian and Greek mythology. The name *Indra*, which Professor Müller states to be "of Indian growth, and unknown in any other independent branch of Aryan language," is a contraction of two Lycian words, *in edre*, *in the circle*. In the thirty-fourth line of the north-west side of the obelisk inscription appears the compound term *ofadra*, *the outer circle*, which was a territorial division, named in connection with the word *Troáade*, signifying *the lands of the Troes*.

The compound, formed from the words *in adra*, would, by contraction, become *indra*. The meaning of the term is further shown by the Sanskrit, *kentra*, centre. In the obelisk inscriptions, *Iua*, the *High Being*, is spoken of as the Ruler of the outer and inner circles of the heavens. This name *Indra*, in the circle, applied to the Deity, signifies *the centre of the universe*. Professor Max Müller derives the name *Zeus* from the Vedic Deity, *Dyu*, and the latter name from the Sanskrit root, *dyut*, to beam. The Latin form of the name, *Deus*, is nearer to the compound Lycian term *ddeū*, the God *U*, formed from the aspirated *De-God* and the name *U*. The Deity cannot be conceived of without light, and the compound name *ddeū* lies at the base of the Sanskrit root *dyut*, or *dya*, to beam. The name *Athênê* is composed of the Lycian words, a *dde ne*, signifying, to the God of heaven, the name being evidently derived from an ancient Pelasgian temple inscription. The tradition that makes *Apollo* the son of *Athênê* * is illustrated by the etymology of the former term. The name *Apollo* (the Oscan 'Απελλοῦν) † is a compound of *ape-son* and *lu*, a secondary form of the name *U*. The genitive *o* inflection added to the nominative *lu*, would by crasis form *lo*. The compound *Apelo* thus formed, as shown in the Oscan, by reduplication in the Greek, becomes *Apollo*. These two names, *Apollo* and *Athênê*, thus etymologically regarded, declare *Apollo* to be the son of *U*, the God of heaven. The tradition mentioned by Herodotus, that the Pelasgians for a long time offered prayer and sacrifice to the gods, without having names for any of them, appears to be illustrated by the breathing vowel *u*, being the Lycian noun for *being*, whether applied to the Supreme or created beings, the connection determining the sense. The spiritual Being, whose name was in this manner whispered by the Pelasgian progenitors of the Athenians, was obscurely remembered by the latter, when they raised the statue to the unknown God, whose nature and character St. Paul, long centuries afterwards, explained to the Athenians. The Lycian obelisk inscriptions and epitaphs, and the terms of the language, declare the spiritual essence of the God of heaven, as a Being separate from the created—the Divine origin of man—and his spirit separated from the body to be dwelling on high. The Lycian language also indicates that a pure faith existed among the Aryan nations before their worship was debased by materialism, and their traditions consequently obscured by the fables of mythology.

TRANSLATION OF THE INSCRIPTION ON THE XANTHUS OBELISK,
COMMENCING BELOW THE GREEK LETTERS.

[The letters in the Lycian words printed in Roman type indicate the restored portions of the inscriptions, the missing letters being filled in from the perfect words found in other parts of the monuments. The words inserted in parenthesis are words not contained in the original, but required for the sense in the English translation. The numbers indicate the corresponding lines on the monument.]

* Max Müller, "Science of Language," vol. ii., p. 553.

† Ibid., vol. i., p. 103.

NORTH-EAST SIDE.

- (1) *swertē* : *mēzewē ema* : *sawase*
 Decree of the high king. Let the farms give tribute to the
mrū *ruēpē* :
 king, (and) the inhabitants of the cities around, (and) let the people
sēwē : *pasaū* (2) *natre* :
 offer for the king of kings. To the cities of the circle,* the
slate : *gosztle* : *deslēē*
 high cities, the outer cities, the high and the low towns, (and)
getaw *osē wētēla*
 inhabitants of the territory, (and) all the towns (of the territory), of
 (3) *mra* *troyēle* : *zazale* :
 “the outer farms.”† I speak to the Troes in the towns the commands
noūou : *troūouē* *nēke* *ēpē* : *mēdēz*
 made by him. Offer for him gifts the people, (and) the Medes
 (4) *pplē* : *gegwaioū* :
 people, in the towns. Let the inhabitants of the lands cultivate for
wētūlēemessekētēse :
 him, (and) let all see the inhabitants, high and low dwelling, to
 (5) *ofēerē* *ruplēz*
 make offering each, the inhabitants of the cities, and the people of
sēwē *hule* : *renepe* :
 the towns, for the king, shining, (and) the radiant sons (of the king).
madase *toleyēē* (6) *ēanrp* :
 Let the farms give, and the houses in the towns (in) all the terri-
troūoude : *gēregwa* :
 tories of the cities of the Troad, goats' hair and silk robes. Let
mē *gwade ī ī* : *kode* :
 each of the inhabitants give fine flax, and flax ‡ of the houses and
mrmmē (7) *kssf* :
 lands around the inner low (territory), the high outer farms, (and)
trāmele : *ya* : *ofē* *terulm*
 Tramele. Offer flax the inhabitants of the territories of the high
rofasa : *kopll* (8) *scwēwē*
 cities, and let the high farms offer. Let (the city of) Kopll give the

* The circle was a territorial division in the part of Lycia called the *Troūoude*, which was divided into the outer and inner.

† Several districts are in this way named in the inscriptions, as the towns of the high farms, the lands and farms of the high outer farms, &c.

‡ Two descriptions of flax are mentioned, the first indicated by the vowel ī, the Lycian term for *fine*, the other by the long vowel ī. The latter adds the vowel a, the separate word appearing as *īa* or *ya*, and in the compound terms by adding a prefix, it takes the form of *eyā* and *eyē*.

king tribute of silk, (and) let the inhabitants of the farms give, (and)
ēsunūmla : *gwaldase* *ēwe* *nowē*
dwelling in the towns around. Let the low inhabitants each offer
kēre : (9) *sēsode* *slūmate :*
goats' hair and silk, (and) let the outer farms and lands give wool.
zrođoūlū : *đođru* *more :*
Offer for him wool, the inhabitants of Aoûre, (and) the outer low
toplēlēme (10) *az :*
(territory), (and) let the towns and cities give wheaten flour. By
sēwē swertu *pzroūle*
the decree of the king it is high commanded by him (that) the
lēlēwēde : *gitawase* (11) *rē nekē :*
towns weave. Serve the king goats' hair, (and) give silk, the men
fagse : *pewe :* *krēsē :*
of the outer mountain farms. Offer goats' hair inner and lower
rlārale :
(garments), the towns of the territory of the city of Pinara—the
prēde : *gapale :* *ya* (12) *rde :*
territories of the high cities of the land of Gale flax. Low and
mpn *mrsofute :*
high, let the high supreme command spread to give tribute for the
sēwē *lulamre :* *gita wa eme* *slūme*
king shining around, the order of the ruler to the cities (for) tribute
(13) *zroā :* *oūēū*
of wool. Offer for him ! Let each offer wool !
mē ofē *kēmeyēde :* *rgsade*
Let each offer goats' hair and wheat, the inner farms, and lands,
zroūoūētez *erēmē*
(and) offer for him the houses, silk-bordered lower garments, em-
mēde : *gwadasade*
broidered. Let the inhabitants of the farms and lands * give (pro-
kode *mafatē :*
duce), (and) let the houses and lands weave higher and lower gar-
klēema :
ments), (and) fringed goats' hair and silk higher (garments), (and) in
feyēdre : (15) *itofetune :* *pdorade :*
the outer and inner 'circle' let each offer dyed wool, (and) present
sewe pasouū :
gifts for the king of kings.

* The term lands, in distinction from farms, is probably applied to the lands cultivated by the inhabitants of the towns, the lands being named in distinction from the farms throughout the inscriptions.

*itēnē**rokēte*

Let each of the near (inhabitants) offer spun goats' hair, (and)
gwedē (16) *fine :* *olagade*
 weave lower (garments of) linen, and silk. Let the outer mountain

*zrutune :**sē**runareyo*

lands offer dyed wool, and weave woollen higher and outer (gar-
 ments), the inhabitants of the city territories, and the inhabitants of

(17) *aēe : na :* *tretemlonafatē :*

the inner mountain farms. Let all the men of the cities of the circle,
 and each man of the outer cities weave lower (garments). Let the outer

*feztas**rp*

farms and lands offer flour, and wheaten flour—the inner city-terri-
azi :
 tories fine wheaten flour.

(18)

*ukēwēe**goste**tlomp*

Let the inhabitants give of all the outer cities, (and) the inhabit-
gwgwaz :
 ants of the outer city territories, woollen and linen robes, (and)
oállē *mēde :* *swertu : gwadez :* (19)
 offer fringed silk, embroidered. Let the people give according to

*tofe**pēnēra**drētd :*

the decree. Offer the territory of the city of Ere carpets, (and)
gēre : *gwa :* *froksa :* *norēe :*
 goats' hair, and silk robes, (and) let the outer farms offer gold coin

sēwē zri

for King Cyrus.

(20)

*gwale :**nēetaeyēsē :*

Let the inhabitants of Gale, the men (of the towns) of the
dēkēre *sreso :*
 territory, and the inhabitants of the farms weave silk lower, inner,

*winū**tweso :*

and outer (garments)—the inhabitants of Arina, woollen lower, inner,
prētē (21)
 and outer (garments), (and) let the territories of the low cities, (and)

*lagade :**zrutune :**sēwēwē*

the mountain lands offer dyed wool. Give the king tribute of silk,

*werzu :**otakeya*

the inhabitants of the farms of the inner circle, (and) let the outer

tramelez (22) *twepu*

(inhabitants) give flax, (and) let the Trameles, the people of the low

(29) *mume* : *mafele* *klleē*
 towns of the city of Mume, higher fringed (garments), fringed goats'
mēde : *almunalalū* :
 hair and silk, embroidered, abundant agricultural produce, and
 wool.

kezē *oālēpulitas*
 Let the high farms offer silk, wool, fine flax, and wheaten flour, (and)
 30) *ēdedēwe* * *kodē* : *powrate* *pērē* :
 the high daughters of the houses and lands offer gifts of woven

mēdeyē *tēkē* : *gozritas*
 silk. Embroidered linen let the houses give, (and) let the houses

(31) *es* *eg* † *roáoúlatu* :
 make fine wheaten flour. Flour and corn offer the high inhabitants,

troáoúitase *tale*
 (and) let the houses and farms of the Troes give in the towns

ērmedēlēle : *tole-*
 bordered lower garments, and higher fringed (garments). Give the

yēle (32) *feg* *sawa* *lawamētāmē*
 houses in the towns corn, (and) serve the king abundant food the

gwalē : *luāpē* : *tonēpine* :
 lands of the towns—wool, flax, and silk, (and) let the houses dye flax and

sēwē (33) *rupoe* *sawa*
 silk. For the king present offerings, (and) give the king tribute of

ke : *wētūwēlēena troáoúez* : *tweso* :
 fine goats' hair, (and) let the men all see to offer for him woollen

streyē *kawo*
 lower, inner, and outer (garments), to spin flax, to draw out fine

(34) *oū* *sē* *aēmasa* :
 goats' hair, † (and) offer the low, and all the high farms.

NORTH-WEST SIDE.

(The first 21 lines fragmentary.)

(1) . . *koū* : *edaóuru* *ētr* . *etofry* . (2) *erēmēde*
 . . . the inhabitants of Edaoure . . . silk bordered
sēwē *lu ylūt* . . *lede* : *aēkēm-*
 lower and higher garments for the king . . . Let all give

* The term high daughters of the houses and lands signifies the daughters of the high land, houses, and lands, the adjectives high and low being applied in this way, as the high inhabitants of the farms and houses, the towns of the low inhabitants, &c.

† Two descriptions of corn and flour are named in the inscription *aede*, wheat; *az*, wheaten flour, and a corn named *eg*, the flour of which is called *ez* or *es*.

‡ The term draw out fine goats' hair refers to the process of picking out the fine hair in the inner coat of the cashmere goat.

- lume* *ekēmlume* (4)
 tribute of wool. Let each give tribute of wool. . . . Let the
fesede *profīr* * *aloûrû:* *nakēm*
 outer farms and lands offer flax. Let the inhabitants of Aloure give.
 . . . (5) *rsaoûre* *tupē* *tolskleyē* . . .
 . . . Let Rsaoûre produce silk, (and) the houses spin silk, and
 (6) *zroû* *pēd* *onekēwē*
 flax. . . . Offer for him curtains, and let the outer and near
tāmerē *r* . . . (7) *roûû*
 inhabitants give bordered woven silk. . . . Offerings for him,
ofēte *sokru:*
 offer the houses, (and) inhabitants of the spread cities. . . .
rloāmowu . . .
 Let the territories of the cities offer! Offer wool. . . . Let
 (8) *ēzele* *winû*
 the inhabitants of the farms and houses, (and) the inhabitants of
twa
 Arina (weave) woollen lower, and higher (garments), (and) let the
gozritrû . . . (9) *ala:*
 houses make fine wool. . . . (Offer) agricultural produce, the
ralaraema: *sapale fē* . . . (10)
 high territory of the city of Pinara . . . the inhabitants of
cūmû: *tēfē* *sē arāpû:* † *alle* . . .
 Mume (Eumepia) silk coverings for counterpanes. The towns . . .
 (11) *ēlole sē* *trāmētē:* *kopre* . . .
 . the outer towns and farms of Tramele, the territory of the city
 (12) *wede orto massgû:*
 of Kopll. . . . Let the outer inhabitants weave higher woollen
 (13) *wēsekē:* *lostroûge* . . .
 garments. . . . Let all the farms give offerings of the offspring
 (14) *kwēz sē* *wofēdre* . . . *ap* . . . (15)
 of cattle. . . . All the farms of the outer circle. . . . Let
nēotene *lēlēpwēdepē* (16) *eygnu:*
 all the near and outer towns weave silk. . . . (Offer) flax and
kopre eptoete:
 wool, the people inhabiting the lands and houses of the territory of
ot . . . (17) . . . *adē ēreflēwē*
 the city of Kopll. . . . Give bordered lower garments, and

* The final *r* in the compound *profīr* appears to be merely a reduplication of the same consonant in the verb *ro*, to offer; the accusative to the verb being the noun *i*, flax.

† The words *tefe se arapu* are, literally, silk spreads for on the woollen. In another passage lower woollen "spreads" for beds are named.

troáoúite *t* . . . (18) . . *a*
fringed silk lower (garments) the houses of the Troes. . . . Spin
sl deteo

higher, lower, and outer (for weaving into higher, lower, and outer
garments), (and) let each give linen and silk. . . . Weave goats'
gēregrī *uzo ssdlgo* (20) . . . *e*

hair, silk, and fine flax, the farms, lands, and houses of U. . . .
sekēto *ēfū* *uēz*

Let the farms and houses give (of) Inner U, (of) Lower U, the
ose *tara* *et* . . . (21) *tweso*
outer farms, (and) the inhabitants of the highlands. . . . Woollen

toſtte : *arāare*
lower, inner, and outer (garments) let the outer cities on the high-
mēde *oúg* (22) *otladē* *itē*
lands embroidered offer. . . . Let the outer lands give spun

tēru *ekētēyu*
flax, (and) spun wool, high and low spun wool (for weaving into
higher and lower garments), (and) let the houses dye silk and flax.

(23) *ofē* *eyēpī* *tīru* *kīre*
Offer flax, and fine flax, spun wool, goats' hair, and silk, (and) linen

tgaeya *koterſsa* (24) *zayačn*
garments, the inhabitants of the houses and farms. Give the king

mētēnēma *ssgaty* *ortofūz*
linen and silk inner, lower, nearer, and higher garments, the outer

marūz (25) *trām-lēwē* *tēkēre*
inhabitants of U, (and) Higher U. Let all the Trameles weave silk,

trēgale *peſē* *gorzazu*
the cities of Gale, the high farms, (and) the inhabitants of the outer,

(26) *oúroáoúle :* *mēeyē*
high farms. Offer ! offerings for him offer in the towns, everyone

loúūma *pssēse*
of cattle and give wool, (of) the high inhabitants of the farms—the

slana *kēre* (27) *upreya*
men of the high cities goats' hair and silk, woollen and linen thread,

zgga : *mone* *troáoúde* *tasi*
(and) garments. (In) the outer and nearer Troad, fine wheaten flour

towade (28) *mume* *ēzi :* *trapale :* *mētonēopreye*
let the houses give—Mume fine flour—Trapale (and) the houses of

ēeyēd
the nearer and outer city territories silk and wheat.

(29) *kewē* *mērēde* *uekáoū*
For the king weave low and high (garments) the inhabitants of

remiez : *itofetūne* (30) *ordēsez*
Higher Aoûre, (and) let each offer dyed wool, the outer farms and
fagssade : *kewē mērēde*
lands, (and) the outer mountain farms and lands. For the king weave

snekăouremiez : (31)
low and high (garments) the inhabitants of Nearer Aoûre, (and) let
itofetūne : *ordēsez* *fagssade*
each offer dyed wool, the outer farms and lands, the outer mountain

(32) *toworez*
farms and lands, (and) the inhabitants of the outer low (territory)
ukē dēpī :
(and) let the inhabitants give silk and fine flax.

prēde : *eazate :* *zre*
The territories of the high cities are all commanded (by) Cyrus
waē : (33) *nekēdēze :*
the Ruler, (that) the men of the lands and farms give, (and that) the
motada : *apitade :* *tētūte :* (34) *laura :*
outer (inhabitants) give his son fine-worked gold.

mēmone *trouôude tofe :* *ofadra* (35)
Let the outer and nearer Troad offer. In the outer circle let the
m-topēnē *tēnune :* *wīza :*
houses dye silk, spin dyed wool, (and) give the king tribute of flax.

preyēleya : *llēdēpo :*
In the city territories and towns offer fringed silk higher (garments),
(36) *gēzā :* *gwadasā :*
(and) give the king tribute of goats' hair, (and) let the inhabitants of
aēd. *sedadopē :* *sēwē*
the farms give wheat, (and) the farms and houses give silk for the king
paswo (37) *ēse :* *ēsunumla :*
of kings, the inhabitants of the farms, and dwelling in the towns around.

pēsēypu : *reyēte :* *elune :* (38) *zewē*
For the high sons radiating the light of Heaven of the king
zāme *mēkēdewē :* *wēledēle :* *alwūpē :*
commanding, and the fair daughters, sight-blinding, give tribute of

(39) *ekoptlē :* *mogssa*
silk abundantly, the high outer cities and towns, (and) the outer
peyēlomlēr : (40) *itēmtonafate : **
farms. In the outer city territories and towns let each man

(40) *meaē :* *ledēwē :* *lweyu*
weave, (and) let all the daughters spin silk, and wool, twist silk
etrēnēfīnē :
thread, and dye fine flax, and silk.

* Literally, let each outer man weave.

(41) *gitawopē* : *kitrē* :

Draw out fine goats' hair and silk,* twist goats' hair thread, (and

ēofepē : *wosaffine*

let each offer silk. Let the outer (inhabitants) give the king tribute

(42) *etēa* *tralīye*
of fine flax and silk, and let all twist thread of fine flax, and of flax,

ffyēdperē : *alwagū*

(and) let each make wheat fine (grind wheaten flour). Serve the king

Aoûrū (43) *kēlēme* :
wool abundantly, the inhabitants of Aoûre, (and) goats' hair, and silk

molune

bordered lower (garments). Spin dyed wool outer (for weaving into

puzpple : *utrēwē* :

outer garments) the people of the towns of U, (and) twist woollen

asū.

(44) *slreyē*
and silk thread, (and) let the inhabitants of the high farms spin flax.

ralamo

eagzzūtūpē :

(In) the high territory of the city of Amo let all the inhabitants of

īroáoúēir

the farms produce silk. Flax offer for him, and fine flax, the farms

repssē (45) *trāmelē* *zāpde ēsēte*

in the city territories of Tramele. Give the king tribute the high

gēregwazī :

inhabitants of the farms and houses of goats' hair, silk, and linen robes.

ēpēōúze

(46) *trapalao* :

repssēde

Let the people offer of the farms of Trapale, the farms and lands of

prllēle :

kēdepē :

the city territory, (and) the towns of the city territory, goats' hair

(47) *itēnu* :

ēprekē

higher and lower (garments), spun flax and wool, silk and goats' hair

zete :

kalo :

thread, (and) let the farms and houses spin goats' hair outer (for

weaving into outer garments).

oûēsūtineo :

Offer each of the inhabitants of the farms dwelling in the near

wīpwū

(48) *orſaga*

mlatefzzyēse :

and outer (territory) fine flax and wool, (and) dwelling in the houses,

mēfēlromē :

and farms around the outer mountain lands. Let the inner and

* The term *draw out silk* refers evidently to reeling silk from the cocoons. The term *draw out goats' hair* is explained in a previous note.

(49)

outer (inhabitants) give. Around the inner low (territory) make
ertte *leke* *ostte* *kewe*
 effort, the cities, (and) towns to give, (and) let the outer cities all
drala : *klpe* *nofe*
 give agricultural produce, fringed goats' hair lower (garments) offer,
 (50) *zeoso* *krēde :* *kewē : paswo :*
 (and) lower outer (garments) weave of goats' hair for the king of kings.

(51) *wēledēle kewē :*

Let the outer inhabitants for the sight-blinding king (and) the
emēpē *rēri* *nēsttē* *m'late :*
 high sons radiant, the near cities, the houses of the towns around,
gwadusez (52) *tofe* *māde*
 (and) the inhabitants of the farms give, (and) offer embroidered
leyēndfēz
 linen inner (garments).

(53) *ppn . . . ze kewē :*

Let the inhabitants of the mountain lands offer . . . for the
rrogssē : *rodoūe* *nēzēs :*
 king, (and) let the inner and outer farms offer for him near and inner
 (54) *mēgērezī* *āoūru*
 (garments). Make corn fine (grind flour) the inhabitants of Aoûre,
sēwa : *rekassa :*
 (and) give the king tribute the low and high farms, (and) the farms
sēwofēdre *orā* (55) *sē mēnē * ofllūtē :*

of the outer circle gold, and let all offer tribute inhabiting. Let the
repssē *umomē* *ofzūie :*
 farms of the city territories around the outer low (territory) offer
ssē (56) *gozrofuta*
 wool, fine flax, and silk, (and) the farms and houses offer tribute of
eeā : *fagssē :* *atlase :*

silk and flax—the outer mountain farms, (and) the towns and farms
neworune : (57) *trāmele :* *ute* *repssu*
 in, near, and outer Tramele. Give tribute the inhabitants of the
tāpēfute : *sēwē*
 farms of the city territories. Let the people give tribute for the king
etē (58) *sukunē : mūmrēkērorē* *medoto :*
 and the queen. Wool, silk, goats' hair, and gold coin let the houses
losaleya : (59) *zunanomte :*
 give—the cattle farms in the towns, the inhabitants of the farms, and

* The etymology of the word *mene* appears to be article *me*, the, *ne*, men ; but the use of the word in the clauses *tomenete*, inhabitants of all the houses, *tomeneweya*, inhabitants of all the lands, &c., shows it to be an adjective pronoun of the same significance as *we* and *ae*.

ūrofasaz :

the men of the outer cities, (and) let the high farms offer wool.

*mēōūleyo :**gopēleyo :*

Let each offer in the outer towns, the inhabitants of the low

(60) *ēwēle**yēez :*

outer towns, the towns of the low inhabitants, and the low inhabitants

*ddēlopēlez :**neofē : **

of the farms, the high outer city territories, and towns. Let all

logwūto(61) *sāmute :*

offer cattle, sheep, and wool inhabiting, the fixed tribute. Goats'

*kēlēēmē**wītele ofēpillofe :*

hair and silk-bordered lower (garments), and spun flax offer the

(62) *mloggūte :*

people of the towns, offer! Around the outer (territory) give

tonēfinē :

tribute, (and) let the houses dye fine flax.

*mēfunu trāmeleya :**kāmasade*

In the inner Tramele towns, (and) the surrounding farms and

(63) *sladepē**wēlēleya**onetupē :*

lands give silk. See in the towns the outer and nearer to produce

*orto**tmarūz*

silk. Let the outer inhabitants, (and) the inhabitants of Higher U

(64) *trōūōūll**etenē**kāmule*

offer for him fringed woollen (garments), and let all around give

*ponū**madēde*

tribute. Offer the inhabitants of Arina, (and) let the inhabitants of

ēsūnūmla :

the lands give, (and) dwelling in the towns around.

(65) *gomae**adē**nūneyētema**sggāteyē*

Let all the houses give dyed woollen lower and higher garments.

ōāzze

(66)

*meru**inegenase*

Offer the farms, (and) inhabitants of (the city of) Mere linen, silk,

kēsēse

and goats' hair lower (garments for) men, (and) goats' hair inner and

*āōūre**kēwora**sēwūnēse*

lower (garments). Let Aōūre give gold, silk and woollen inner

(67)

kētēdēse

and lower, and goats' hair and silk, inner and lower (garments),

*kēgogwase**gitaāza*

(and) let the houses serve the king fine goats' hair—fine goats'

* The prefix *ne* in *neofē* is a contraction of *mene*, all, as shown by a parallel passage in the fifty-third line of the inscription, *menoflute*, let all offer tribute inhabiting.

hair, and fine flax the high farms, (and) let all the children
withra *elunēde* :
 twist linen thread, (and) spin dyed wool low and high (for weaving
ētāoûre *sītema*
 into lower and higher garments). (In) Etaoûre linen lower and
sggā (69) *gopdedo* *we*
 higher garments let the houses and lands give, (and) let the lands
oûlune *aēde* *trēegale* *ketssēl*
 offer dyed wool (and) wheat—the cities of Gale, fringed goats' hair
 (70) *eāpre* *sōfaraseyē*
 (garments)—silk and linen thread in the spread farms of the high-
zgj *edrasade* :
 lands—garments the farms and lands of the circle.
nēzewē *tofez* (71) *tramelē sokre*
 Near, inner, and lower (garments) offer the spread cities of
gīcawa *told ** *toaē* :
 Tramele. Linen and silk robes, (and) “house-spreads” give all the
trōuouīte.
 houses of the Troes.

SOUTH-WEST SIDE.

(The first 27 lines fragmentary.)

- (1) . *e* : *sēwē* : *to* . (2) . *ēwē* : *mērē* : *ē* . .
 of the king let each weave . .
 (3) . *fēze* : *ēwēd* . (4) . *eā* : *gērēdāwē* :
 goat's hair, silk, and linen,
 (5) . *galal* : *mēte* : *wa* : . (6) *ignawatosi* :
 higher and lower (garments) higher linen
tete . (7) . *ima* : *sē eitumu* :
 (garments for) men, and outer linen and silk,
poē . (8) . *ē prinafū*
 linen, and woollen (garments for) women offer tomb
āmēt (9) . *eri* : *sē etēletēle* . (10) *sēkēwora* :
 ornamented around. . . . Let the farms give
sēfe : *magū* : *e*
 gold, the outer farms, (and) the inhabitants of the mountain lands.
 (11) *mērēwe* : *sonemanadi* (12) *ēsēyu* *chortta*
 . Let all make temple. † . To be dwelling (in tomb) sister (and)

* The term *td* signifies drapery that is *spread*, in distinction from the term *ped*, curtains or hangings. The term for carpets is *dretā*, low spread. Dyed woollen coverings and coverings for beds of wool and silk are named under the term *td*.

† The term temple is expressed by the words *sonemanadi*, to spread adoration to the God of Heaven. Another term used for temple is *arafarcze*, the high dwelling on high.

ēwawu : ger . . . (13) tofēlēre ēwawu nēlēdē
 nieces. Make offering this the men of the towns, and the
 (14) *tokēdre tofēlēre*
 lands. Let the houses of the "circle" make offering.
chukor (15) ēeme arafazeyē dēkoprd . . . (16) eazeya
 Temple, and high house costly . . . in all the
 *prenara tēlom . (17) troōūs*
 towns of the territory of the city of Pinara . . . the Troes
allawē ēōūweyē . . . (18) . . . te itēpe : pofēyēwē :
 (and) their slaves. Let the people offer for Iua (the
chor . . . (19) itēfu : ēroōūe nauēyēze :
 Deity). Present offerings. Let each offer for the sky-
g . . . (20) . . . we sē itēfu tēchche :
 dwelling and present offerings, the high inhabitants. Let
ēroōūeyēwē (21) sē itēfu nauūna :
 each offer for Iua and present offerings the high mothers
nēlēzē (22) ēyēle : merazzu
 for the Heaven-dwelling. Place in "couches" (for)
komē : ēk . . . (23) tēgesttē :
 dwelling to dwell in the family apartments (of tomb) the
unēwe : sē ginawe . . . (24) . . . we : arppagooū : tedēeme : gēre .
 near women, and brothers the son of Harpagus
(25) prllēōū : gūwoū : gēzegwaoū :
 the kindred of him, (and) the race of him begotten of his body to
towēs l . . . (26) azevēde : uinē gesttē
 dwell. Place the near men and women in the family
faradra . . . (27) muzwē turnē ofadrage :
 apartments of the high tomb the outer race in the outer
ēsē : sazzo
 family tomb, to dwell in the outer "couches."
 (28) *ētēwe : agūara :*
 Let the inhabitants of the houses and lands, (and) the inhabitants
nēlēdē
 of the mountain lands of Pinara, the men of the towns, and lands of
arina : (29) mētepagū :
 Arina; the people, and the inhabitants of the mountain lands, the
trāmelē ezvēde : rēvēde :
 low and high inhabitants of the farms of Tramele, (and) the low
itērēz (30) wasē :
 and high (inhabitants of the) lands each make the base, (and) the
topa : ēzvēde :
 done. Let the low and high inhabitants of the farms, (and) the
uūmēnēde : trāmelēde : (31) sē' mēdēzēde :
 workers of quarried stone—the Tramele workmen, and the Medes

radru tawēde : *woûoûdaē*
 workmen build the walls of the tomb. Draw out for him (stones)
 (32) *aē : sē mooôoûunēde :* *topēleyu :*
 from the ground all, and work stones for him, to be placed in the
tr meles (33) *maēoneme :* *rofēwēwi :*
 basement, (and) let the Trameles low corniced stone offer finely
topēleyu : *sē* (34) *ereyu : wa*
 worked, to be placed in the basement, and sculptured, (and) high
maāoneme : *rofēwēwi sē ereyu āmēet*
 wall stone corniced offer finely worked, sculptured, and ornamented
 (35) *oleya ēredē :*
 around. In the outer towns make effort the inhabitants of the
eZRēde :
 lands, the low and high inhabitants of the farms, (and) the in-
zuāteya : (36) *zōūweyēde :*
 habitants of the farms in the towns, each to present offerings* for
tagwawa : *nēlēdē :*
 (Harpagus). Let the inhabitants of the mountain lands, the men
wūtarwē : *utae :*
 of the towns, and lands all give tribute. Let the inhabitants of all
 (37) *tomenēwe :* *nēlēdē :*
 the lands of the territory of U, the men of the towns, and lands all
wūtarwē : *sttare :* *maleyēwe :*
 give tribute. Let the cities of the highlands, the high and low
 (38) *wūtarwē :* *gwane :*
 inhabitants, all give tribute (for) the walls (of tomb), (and) let the
ēsē : *troôoûuneme :*
 inhabitants of the farms, (and) the city of Troûoûa,† (and) the
tēwētē : *pēai*
 inhabitants of the lands, and houses of the territory of the city
sē (39) *melasū itaū :* *pddu*
 of Ai, and the inhabitants of Melasa, each give sacrifice, (and) offer
nēke : *goûūseyē :* *eZRēde*
 gifts for the race of him. Let the low and high inhabitants of the
 (40) *zōūweyēde :* *oûū*
 farms each present offerings for (the race of him). Offer sacrifice !
oûwū oûē :
 offer sacrifice ! Let each offer !

* The offerings required from the inhabitants of the lands and farms would be the provisions required by the multitude of workmen employed in erecting the tomb, or mausoleum. The reflective form of the verb is used to present offerings for him, that is for, Harpagus, by giving the produce of the lands.

† *Troûoûa* was the city afterwards called *Tlos* by the Greeks. See Mr. Sharpe's notes to obelisk inscriptions in Sir C. Fellow's "Lycia."

tlūi mēdē : nēlē (41) tarwedē :

Let the families of the Medes, the men of the towns, weave low

gēruē : wasttē
and high (garments) of goats' hair, wool, and silk. Let the high

ūerī : tlawī : ērouōūēde :
cities weave wool, and flax, spin fine flax, (and) let each offer for

(42) wutawe
him the inhabitants of the lands. Let all give tribute of embroi-
mēdweyawē : ēsē

dered silk higher, and lower (garments), (and) inner, and lower
gēruē : tēwētē

(garments) of goats' hair, wool, and silk the inhabitants of the lands,

pēai (43) sē fagssērdeme :
and houses of the territory of the city of Ai, and the city of Fagsser.

ute : zēwe : ouwūte : wī orē
Give tribute for the king ; offer tribute of fine flax, (and) gold coin.

(44) itēre : glrena
Let each weave fringed goats' hair lower (garments for) men, the

tēai : wūtatwē ūka :
city of Ai. Let all give tribute of higher linen (garments) the

ērēklē (45) seīwa : gl
inhabitants of Erekle (Heraclea). Give the king tribute of fringed

asa : parraste :
goats' hair (garments) the high farms, (and) let the inhabitants of

ūwedē : oure gitafate
the highlands weave woollen lower (garments). Let Oure weave of

(46) tawe : ēsē : tawūna :
fine threads robes, inner, and lower (garments), robes for women

tēri : eygnū : eyaē osrs
fine made, linen and woollen, (and) linen and silk outer, and inner

(47) kue ignasē :
(garments), (and) lower woollen, and lower linen (garments for)

wūtatwē : mokrlē : tēfuzē :
men. Let all give tribute the outer cities, and towns, of woollen lower

(48) sūmate : trououētū :
coverings for beds. Offer for him the inner inhabitants, (and) the

toragssē : zggūna
inhabitants of the inner mountain farms, garments for women fine

tēri : (49) ēsē : womrggū
made, inner, and lower (garments), outer, and inner woollen (gar-

tēwūna tēri :
ments), (and) lower woollen (garments for) women fine made, (and)

wūwawē
woollen higher, and lower (garments).

SOUTH-EAST SIDE.

(The first 20 lines fragmentary.)

- (1) . . . *ya : proleya :* . . . *ute pddu . .* (2) . . . *ya :*
 . . . Offer in the towns, tribute offer. . . . Let the farms,
sēyesttēwēlerona . . . (3) . . . *ē : tumadē*
 and men of the low cities see to offer. . . . Give wool, (and)
tggazeyē mē it . (4) . . . *u : sē uūwēre* . . . *sē*
 linen garments . . . and weave woollen lower (garments), and
rezūna : . . . *tey .* (5) . . . *ēm rouowulde :*
 lower (garments for) women. . . . Offer for him fringed woollen
gwewi : . . . *wi .* (6) . . . *āmēde :* . . . *arosi :*
 higher (garments) finely worked. . . . Work bordered higher
kwewo : . . . *to . .* (7) . . . *oūzse*
 outer linen, (and) goats' hair outer (garments). . . . Let the farms
wrewo . . . *gūkwe :* . . . *kwewo . .*
 offer silk, outer (and) higher silk, (and) goats' hair outer (garments).
 (8) . . . *itērē* . . . *fētēwe*
 . . . Weave fine flax, and silk the inhabitants of the houses, and lands
komēzeyā . . . (9) . . . *ēde* . . . *pzzfdēze*
 dwelling in the towns. . . . Let the lands and farms (of the terri-
 tory) of "the high outer farms" offer large agricultural produce,
 to . . . (10) *ottwaaes* . . . *ēroūōūe :*
 (and) the houses . . . (In) all the outer lands let each offer for him
*sēt : ** . . . *eŋe .* (11) *aēe* . . . *ēztēōūa*
 and the farms and houses of the inner. . . . Let all the inhabitants
 of the farms, and the houses offer. Offer robes the city of Troūōūa
 (12) . . . *ē* . . . *tēri* . . . *watupē* . . . *oūtūa*
 . . . fine made. Let the lands produce silk, (and) offer
 . . . *ūe* . . . *ow . .* (13) . . .
 higher woollen, and lower woollen (garments). . . . Let the
 . . . *lūze* . . . *aēōūe :* . . . *oūlan* . . . *ēse*
 sheep farms all offer. Offer wool abundantly the inhabitants of
 the farms . . . (14) . . . *rēgwawī :* . . . *sēnagworawe*
 . . . (offer) silk, and linen robes the farms, and men
 . . . *p . .* (15) . . . *trōūōūe : trosi :*
 (of the towns) of the outer highlands. . . . Offer for him outer
 . . . *sētoworēwe :* . . . (16) *st . .*
 linen (garments) the farms, and houses of the outer lowlands . . .

* *Set* is a contraction of the compound *sēte*, farms and houses.

d : *troûôûe :* *uinêe :* *mechrápata :* *e*
Offer for the near women, and men of the high radiant king.

(17) *ri :* *gafalês :* *ddêreyê :* *meyê :* *s . . .*
. . . Let the towns of Gale separate flax, flax ! (separate the

(18) *ate arofûteyêse sttrat . . .* (19) *. . .*
fibres of flax) . . . dwelling in the city of Arofu . . .

eyêlê : *mênê roûôûêde*
Linen and silk let all offer for him of the inhabitants of the lands,

towêet . . . (20) *. . . reyûnû*
(and) let the houses fine work . . . lower woollen (garments for) women

sêeyê *monê* *etrpoe*
(and) let every one of the outer, the near, and inner city territories

(21) *wêlêyêsêôû :* *sête*
offer. See the inhabitants of the farms to offer, (and) let the farms

loma :
and houses spin outer and higher (for weaving into outer and higher

wutrewê *rofê reyûna :*
garments), (and) twist woollen, and silk thread, offer lower (garments

treyê *rukeyê*
for) women, twist linen thread, (and) offer flax. Let the inhabitants

(23) *zunagworawe*
of the farms, and the men (of the towns) of the outer highlands

têtretyê *rugêruwê :* *wite :*
twist linen and silk thread, offer goats' hair, wool, and silk, spun

(24) *trôsi mêrêwe :*
flax, (and) let all weave outer linen (garments), (and) let the in-

weyûnagû :
habitants of the lands, and the inhabitants of the mountain lands,

fêldeyê (25) *aêe : na : mêrê : êtêwê*
remove the outer flax (ret-flax). Let all the men weave inner and

sê têfune : *peyêlomlez*
lower silk (garments), (and) dyed woollen coverings in the outer

esi : (26) *eyûnesi :*
city territories, and towns—silk, and linen, (and) woollen, silk, and

spoartaze : *atûna* *mêre* (27) *ûchortû :*
linen to place above the robe for women, (and) weave higher outer

sêina : *weyu :* *sê*
woollen (for) men, (and) let the inhabitants of the lands, and the

towêde (28) *pîlorade :* *sêina* *weyêde*
houses weave, (and) present gifts, (and) let the men present offerings

ddêurâmesz : (29) *poûeriaa :* *penanê :*
for the God-Hu-dwelling around. Offer sacrifice for Iua, the Supreme

tlafa : *fêddrê* *peswêde*
Spirit dwelling on high, of the outer and inner circles the High

(30) *sē itadde :* *plāmadde :*
 Ruler. Let the farms, (and) each of the lands give, let the people
sē oā : *ēwinēde*
 of the towns around, and the lands give, and offer wine and corn.
pddū : *ēwinēde :* (31) *sērssē* *azeyēde :* *sē okewē*
 Offer wine and corn the low farms to present, and let the outer
zeyēde (32) *uēpartae* *sēle :*
 inhabitants give to present to Hu, the High Ruler of the heavens.
trofēpē *eyade :* *uēpartae* (33) *sē orowlelēde :*
 Offer the sons, and the fathers to Hu, the High Ruler, and offerings
pre : *troūōūas* *ōūēūes*
 present, the territory of the city of Troūōūa, offer sheep.

(34) *ēwēlēzēze :* *ēroūōūe :*
 (In) the towns of the low inhabitants, and the low farms, let each
sttūte : *tēle :* *wēwī* (35) *wēlēyēsē :*
 offer for him tribute of spun silk and flax. See the inhabitants of
teri *ponērēwē :*
 the farms to offer fine made near, and lower silk (garments). For
sēwē *pewē* *rē* (36) *ēfu* *asppēa*
 the king let each offer silk of Efū, the high farms, and the territory
sēte : *gitafatu* *tofe :*
 of the city of A. Let the farms, and houses, fine fabrics offer for
sēwē (37) *pddū* *arafazeya :* *itēfu* *nēmo :*
 the king. Offer in the temples, (and) present adoration to the
sēgchchū (38) *chrēdēfu* *ēmo :* *komēzēetete :*
 Supreme Hu. Present high adoration the inhabitants of the farms,
mērafazeyē (39) *nēlēdē :*
 and houses in the temples—the men of the towns, and the lands,
tomenēwe *mlatraza :*
 (and) the inhabitants of all the lands of the towns around (the terri-
tegzede (40)
 tory of) “the high farms,”—the houses, farms, and lands. Offer
owawāmūte : *warazotate :* *tēze*
 around tribute the inhabitants of the territory of Waraza, the houses
arofute (41) *sētokedre :*
 and farms of the city of Arofu, (and) the farms, and houses of the
sē : *ētepoēue :* *sē :*
 “circle,” and let the inhabitants of the houses offer sheep, and
orowlelēdē : *goazeyē :* (42) *sētokēdre*
 offerings give (of) cattle in the farms, (and) let the farms, and houses
atrū *tēwlo* (43) *ofē* *echrāmū :*
 of the “circle” sacrifice sheep, and oxen to offer to the High-around-
pewe *kīte :* *gorzazu*
 Hu. Offer spun goats’ hair the inhabitants of the outer high farms,

komēzeyā (44) *snē* : *ow* *azata* :
 (and) the inhabitants of the near towns. Offer the territory of the
faēū : *tresine* : *sē*
 high farms flax, silk and wool, (and) twist, linen and silk thread, and
itēpddū (45) *zappodēenē* *arafazeyē* : *ēōūwēyē* : *kweyēue*
 let each offer (at) their altars, (and) temples, (and) let all the men,
 (46) *nēemu* *adrodē* : *mawūe* : *sēddē* :
 and women adore the around Deity, the Great Hu, High-inhabiting,
 (47) *awatawaēe*
 the High Ruler of the sky.

nuōūlawe : *ēwētēwe* :
 Let the inhabitants of Arina all offer abundantly—all the
sē *mawūna* : *ēwētēwe* (48) *arina tomenēte* :
 daughters and high mothers—all the daughters inhabiting all the
kērchwe : *gūkwe* :
 houses of Arina—goats' hair higher, and lower, higher silk, and)
ērcēmē (49) *itēmluse* *tūma* :
 bordered lower garments. Let each of the sheep farms give wool,
sē *fēnēpē* : *asttē* *trāmeles* (50)
 and let the outer people, the high cities, (and) the Trameles high
sēddē *tofētū* : *komēzeyā* :
 inhabiting offer wool. Let the inhabitants of the towns weave
uērē *uērē* (51) *troōūūte* :
 wool, and silk. Weave wool, and silk! Let the houses of the
pddū tawe : *winū* *kwa* :
 Troes offer robes, the inhabitants of Arina goats' hair higher (gar-
gssune :
 ments), (and) goats' hair lower (garments for) women.

(52) *ēōūre* : *tawawaza* : *komēzeyā* :
 Let Eoûre, the high territory of the high farms, the inhabitants
padretawe : (53) *arina*
 of the low towns, the low territory of the "circle," Arina, (and)
tomenēweyā : *komēzeyā*
 the inhabitants of the lands, the inhabitants of the towns in the
gūkweyā *komēzcēa* (54) *sētokedre* :
 highlands, (and) the inhabitants of all the farms, and houses of the
kērchche : *adē* *orowle* *iūē*
 "circle" give the choicest, to give offerings to Iua.

(55) *ōūūe* *awē* *towēwe* : *prinēze* : *sē*
 Offer to Hu inhabiting the lands of the sky servants, and their
leoūwēyē *ēōūweyē* : (56) *sēdēeuzggaza* : *sē*
 masters of the farms, and lands of U, and the high farms, and let
itofērewa : *adēsē* (57) *gchkūna* : *ūogwawa* :
 each offer silk robes, and give higher (garments for) women, woollen

sē ginawa *sē* *gitafate* (58) *azzalūe*
 robes, and linen robes, and weave of fine threads wool and silk for
itareyēo
 couches, (and) let each weave higher, lower, and outer (garments)
sēwē : *sē :* *ērtagsse* (59) *erzawē :*
 for the king, and make effort the houses, and farms for the king.
chredē : *wrewa :* *trāmeles*
 Weave higher silk (garments), (and) silk robes the Trameles,
ēsēte : (60) *techche*
 inhabitants of the farms, and houses. Let the inhabitants of the
fēewe : *adēmu :* *lēchchfe*
 high-high outer lands give wool, (and) let the high-high outer towns
oūlūme *setune :* (61) *ēweleya*
 offer tribute of wool, and dyed wool. In the towns of the low in-
gwarūe *zēose*
 habitants woollen, and silk robes, (and) lower, outer silk (garments)
itēfu : *gitafate* *swerpedē :* (62) *gitafate :*
 present. Weave of fine threads silk curtains for beds. Weave of
topēdēzeyē *sē* *itēfu*
 fine threads house curtains of silk, and linen, and present offerings
 (63) *sogdena* *yntṛēdēycē :*
 to the Spread God of Heaven in the high and low cities. Weave
gitafate : *ēspṛowt*
 of fine threads silk to place above the robe.

The Xanthus obelisk inscriptions were brought home from Lycia thirty five years ago by Sir Charles Fellows, and placed by him in the British Museum. A copy of the inscriptions is contained in his journal in Lycian characters, also a copy of them in Roman letters by Mr. Daniel Sharpe. The values of the wedged-shaped characters are pointed out in the preface to the translation, and the translator expresses his acknowledgments for the valuable suggestions contained in Mr. Sharpe's notes on Lycian inscriptions, &c.

ANALYSIS of the opening passage of the Obelisk inscriptions, to show the structure and mutations of the language, its agglutinative character, and its relation to the Cymric, or other branches of the Aryan languages.

The first line of Lycian is a transcript of the original, In the second, the words contained in the agglutinative clauses are separated, and appear in their primary, or etymological form, the aug-

menting and agglutinative letters being eliminated, whilst contracted words are shown in their full form. When the order of words is invested in the translation, the relation of the English word to the Lycian is indicated by the number placed under the word.

swertē : mēzewēema :

sawase

swertē mē zewē mā

sawa se

Decree of the high king. Let the farms give tribute to the king,

mru

ručepē :

um

tru

roūoūē epē

(and) the inhabitants of the cities around, (and) let the people offer

sewe :

pasaū :

natre :

sewe

pasaū

na

tre

for the king of kings. To the cities of the circle, the

slate :

goszte :

deslēē

a te

os

te

de

lē

ē

high cities, the outer cities, the high and low towns, (and)

getaw :

ose : wētela

ge

taw

o

se

wē

ite

le

inhabitants of the territory, (and) all the towns of the outer farms.

mra

troyēle :

zazate :

noūoū :

mra

troūoūu

leye

zaza

te

oūoū

I speak to the Troes in the towns, the commands made by him.

troūoūe

nēke

ēpē :

mēdēz

pple

roūoūe

nēke

ēpē

medez

pple :

Offer for him gifts the people, (and) the Medes people in the towns.

gegwatoū :

ge

we

toū

Let the inhabitants of the lands cultivate for him, (and)

wetwēlēemessekētese :

ofēerē

we

wēlē

ges

ek

ē

tese

ofe

ere

let all see the inhabitants high and low dwelling, to make offering

ruplez

tru

pple

each the inhabitants of the cities, and the people of the towns for

sēwē lule :

renepe :

sewe

lule

re epe

the king shining, (and) the radiant sons (of the king).

DEFINITIONS OF LYCIAN WORDS CONTAINED IN THE OPENING
LINE OF THE OBELISK INSCRIPTIONS, &c.

swertē, *n. nom. s.*, decree, contraction of *sēwē*, *er*, *te*, the command of the king made. Line 1 N.E., *swertē : mēzewēma* ; decree of the high king.

swertu, *n. gen. s.*, decree.

10 N.E., *sēwē swertu pzzoûte lēlewede*.—By the decree of the king, it is high commanded by him (that) the towns weave.

18 N.E., *swertu gwadez*, let the inhabitants give according to the decree. (See remarks on the inflections of Lycian nouns, in the preface to translations.)

mē, *art.*, the, secondary form of article ē.

34 N.W., *mēmome trououde tofe*.—Let the outer and near Troad offer. 1 N.E. *swerte mēzewēma* : decree of the high king.

zewe, *n. gen. and dat.*, king, the genitive and dative of *zawe*.

1 N.E., *swertē mēzewēma sawase mru ruēpē : sēwē pasaū*.—Decree of the high king. Let the farms give tribute to the king, (and) the inhabitants of the cities around, (and) let the people offer for the king of kings. 58 N.W., *ute repssu tapēfute sēwē etē sukune*.—Give tribute the agriculturists of the city territories. Let the people give tribute to the king and the queen.

ma, *adj.*, high, secondary form of adjective a, high.

1 N.E., *swertē mēzewēma*.—Decree of the high king. 34 N.E., *oūsēāēmasa*.—Offer the low and all the high farms. 24 N.W., *zayaēn mētēnēmā sggaty*, give the king linen and silk inner, lower, nearer, and higher garments. NOTE.—The vowel e before *ma* is merely the reduplication of the final vowel in the preceding word, which is common in the agglutinative clauses.

sawa, sewa, *v. imp.*, give the king tribute, give the king, from the noun *zawe*, king.

1 N.E., *sawase mru ruēpē : sēwē : pasaū*.—Give the king tribute the farms, (and) inhabitants of the cities around, (and) let the people offer for the king of kings. 53 N.W., *mēgēre zi aoùru sewa ; rekassa : sē wofēdre : ora*.—Grind flour the inhabitants of Aoùre, (and) give the king the low and high farms, and the outer circle gold. 32 N.E., *sawa lawamē tamē gwalē*.—Give the king abundant provisions the land of the towns.

se, ssē, *n. pl.*, farms, the plural of *sa*.

55 N.W., repssē umomē ofēuie : ssē gozrofuta eēā : fagsse : atase : ne worune : tramele.—Let the farms of the city territories around the outer low (territory) offer wool, fine flax and silk, (and) the farms, (and) houses offer tribute of silk and flax—the outer farms, (and) the high towns and farms in near and outer Tramele. 45 N.W., ēpēōūze trapalao : repssēde prllēle : kēdepē.—Let the people offer, and the farms of Trapale, the farms and lands of the city territory, (and) the towns of the city territory, goats' hair, higher and lower (garments), &c. 1 N.E., sawase mru.—Give the king tribute the farms, (and) inhabitants of the cities around.

um, around.

55 N.W., repsse umomē ofēuie.—Let the farms of the city territories around the outer low (lands) offer wool, fine flax, and silk. 64 N.W., ponū madēde ēsūnūmla.—Offer the inhabitants of Arina, and let the inhabitants of the lands give, (and) dwelling in the towns around.

tru, inhabitants of cities, a compound formed from *tre*, cities, *u*, inhabitants, joined by crasis.

Extract from inscriptions in Spratt and Forbes' journal :—oūla : gezease : tru.—Offer abundantly the people of the farms and the high farms, (and) inhabitants of the cities. NOTE.—In the obelisk inscription this word is contracted to *ru*, in the compound *ruple*, formed of the words *tru* and *pplē*, inhabitants of cities and people of the towns, and in the compound *mru*, formed from the words *um* and *tru*, the inhabitants of the cities around.

roe, ro, to offer.

7 N.E., ya ofēteralmrofasa, flax.—Offer the inhabitants of the high city territories, and offer the high farms. 59 N.W., ūrofasaz.—Offer wool the high farms.

roūōue, *v. reflective*, offer for him, formed from the verb *roe*, to offer, and the genitive pronoun *oūōū*, embodied in word stem.

53 N.W., rrogs : roūōue nezes.—Let the farms around offer for him near and inner (garments). 13 N.E., zroūōutez erēmē mēde, offer for him inner garments, (and) bordered silk lower garments embroidered. 16 S.E., troūōue uinēe : mechradata.—Offer for the near women and men of the high radiant king. NOTE.—In the two last examples, the initials *z* and *t* prefixed to the verb *roūōue* are merely reduplicated, or strengthening initial consonants. The reflective verb *roūōue* is in a few instances contracted to *ruē*, or *ru*, where the subject noun, or accusative is united with the verb, as *ruēepe*, let the people offer for him, in place of *roūōūē epē*, &c.

pasaū, *n. nom. pl.*, kings, the plural of pasa, a king.

1 N.E., ruēpe sēwē *pasaū*.—Let the people offer for the king of kings.

pasoûwū, *n. gen. pl.*, kings, with the genitive inflection ou embodied in word stem.

24 N.E., ade : nofe ladē ēpetade : sēwē *pasouwu*.—Gifts offer for the wife and sons of the king of kings.

er, *n.*, will, command.

Contained in the term *swerte*, decree, contraction of words *sewe*, *er*, *te*, the command of the king made. It is also contained in the secondary form of *mr* in line 12, N.E. inscription, *mpnmrsofute sewe lulamre*. Let the high supreme command spread for tribute for the king shining around. In this clause, the initial consonant *m* is reduplicated in the following word, which takes the form of *mr*. The verb *er*, to will or make effort, occurs in several parts of the inscriptions.

te, *tē*, to extend, to make or do, and participle made, or done.

This verb, with the primary meaning of *to extend*, is the root of the noun *td*, *tef*, that which is spread, a spread cloth. It enters into the composition of *to*, house, which is a contraction of *te*, *o*, *to extend outwards*, which term indicates the tent, or primitive house. It is also contained in the term *tēle*, to spin a yarn, which is a contraction of *tē ēle*, *to extend going*, and in the term *tre*, *to twist a thread*, which is a contraction of *tē edre*, *to extend around*, both of these terms significantly indicating the processes of spinning a yarn, and spinning thread. The verb *te* with the meaning of *to make*, enters into the composition of the noun *swertē*, decree, a contraction of the words *sewē er te*, the command of the king made; into the compound *zazate*, commands made; into the passive verb *zate*, it is commanded, which is expressed by *command made*. It is contained in the compound term, *teri*, made fine; in the noun *ute*, tribute, the primary meaning of which is *let the inhabitants make*. In a similar way nouns are prefixed to the verb *te*, *to make*, to qualify and define the action, as in *fate*, *hand make*; *gitafate*, *of fine threads*, *hand-make*, (a term used to express the act of weaving fine fabrics), as in *prinafate*, the passive of which is *prinafatu*, *that is made by paid men*, a term which expresses the completion, the agency, and payment of an act, the Greek words for this term in the bilingual inscriptions, *εποιησατο* and *εργασατο*, not rendering the Lycian idiom. The verb *te* is also the base of the verb *wēde*, *wētē*, to make. The primary idea in the verb *te*, *to make*, is *to extend*, the physical initiative serving to designate the act, in the same way that *er*, will, the moral initiative, forms the base of the Lycian verb *ere*, to make.

LYCIAN WORDS contained in the foregoing passage, the related words in Aryan languages, and Lycian roots, and elements of compound terms.

Lycian Words.	Related Words in Aryan Languages.	Lycian Roots,* and Elements of Compound Words.
<i>Zawe</i> , king		<i>wa</i> ,† secondary form of <i>a</i> , high.
<i>Er</i> , will, command	Welsh, <i>er</i> , impulse	<i>er</i> , will.
<i>Ere</i> , to make	Zend, <i>kere</i> , to make	„ „
<i>Te</i> , to extend, to make	Welsh, <i>te</i> , that is spread ; Saxon root <i>de</i> in <i>dide</i> , did.	<i>te</i> , to extend.
<i>Tu</i> , to be made		contraction of <i>te</i> , and substantive verb <i>u</i> , to be.
<i>Tu</i> , to grow, to cultivate	Sanskrit, <i>tu</i> , to grow	use of the passive verb <i>tu</i> is made (by the Creator).
<i>Tôû</i> , cultivate for him		reflective form of verb <i>tu</i> , to cultivate.
<i>A</i> , ma, high	Greek <i>μα</i> , used in appeal to high God	<i>a</i> , high, interjectional root.
<i>E</i> , se, low	English, <i>sea</i>	<i>ē</i> , low, demonstrative root.
<i>La</i> , hand	Welsh, <i>llaw</i> , hand	<i>l</i> , to go ; <i>a</i> , high (in distinction from the motion of the feet).
<i>Lē</i> , town, to place	Welsh, <i>le</i> , a place	<i>l</i> , to go ; <i>ē</i> , low (to indicate the act of placing).
<i>Sa</i> , farm	Welsh, <i>sa</i> , that is fixed	<i>sa</i> , fixed.
<i>Um</i> , am, around	Welsh, <i>um</i> , that spreads about ; Greek, <i>αμφι</i>	<i>um</i> , that spreads around.
<i>Tre</i> , city of the circle	Welsh, <i>tre</i> , town	contr. <i>te</i> , city ; <i>edre</i> , circle.
<i>Edre</i> , adre, circle	Cornish, <i>adro</i> , around	compd. <i>ed</i> , inner, and <i>rē</i> , article or affix, <i>the inner</i> , to express the area of a circle.
<i>To</i> , house	Welsh, <i>to</i> , roof	contr. of <i>te</i> , <i>o</i> , to extend outwards, indicating the primitive house, or tent.
<i>Te</i> , houses, city		the plural of <i>to</i> , house.
<i>U</i> , to be, beings, inhabitants	Welsh, <i>yw</i> ; Sanskrit, <i>bhū</i> , to be	<i>u</i> , to breathe.
<i>Oû</i> , oûe, to offer	Welsh, <i>ow</i> , to breathe out	formed from <i>o</i> , out ; <i>u</i> , to breathe—to breathe out, to express a voluntary offering.
<i>Ro</i> , roe, to offer	Welsh, <i>rho</i> , a gift	a form of <i>oûe</i> , to offer.
<i>Roûoûe</i> , to offer for him		reflective form of <i>roe</i> , embodying gen. pro. <i>oûoû</i> .
<i>Oû</i> , oûoû, of him	Greek, <i>ὅς</i> , <i>οὗ</i>	related to the verb <i>oû</i> , <i>oûe</i> , to offer.
<i>Ofe</i> , to offer, n. offering	Latin, <i>offero</i> , to offer	a form of <i>oûe</i> , to offer.

* The Lycian language is based on roots that are simple sounds expressive of the ideas contained in them. The secret of the language lies in onomatopœia, and the comparison of Lycian roots with words contained in related languages ; for example, the roots *a* and *uch*, both signifying *high*, are interjectional sounds of surprise ; the root *er*, *will*, is a vibratory sound, arising from the human breast, incentive to action ; the root *te* is a fine dental sound, expressive of *force extended*, whilst the broader dental sound in the root *de* indicates force arrested in *separating* the parts of a substance. The name *de*, applied to the Deity in Lycian, defines the *separating* line betwixt the Creator and the created. The root *um*, around, is expressive of objects surrounding us that produce the sound ; the root *u*, to breathe, is expressed by the breathing sound of the vowel, &c., &c.

† The term *wa* in Lycian signifies ruler, as in *zrewaēe*, Cyrus the Ruler ; and in *awatawēe*, the High Ruler of the sky. The verb formed from this base is *wase*, serve the ruler, and the noun *wasā*, servant ; but when the article *zē* is prefixed to the noun *wa*, ruler, the word formed is not *zeiwa*, but by metathesis it becomes *zawe*.

Lycian Words.	Related Words in Aryan Languages.	Lycian Roots, and Elements of Compound Words.
<i>Ape</i> , son	Welsh, <i>mab</i> , <i>ap</i>	<i>ap</i> ,* son, formed from root <i>pa</i> . the plural of <i>ape</i> , son.
<i>Epe</i> , sons, people		contr. <i>epe</i> , sons, <i>lê</i> , towns.
<i>Uple</i> , people of the towns	French, <i>peuple</i> ; English, <i>people</i>	
<i>Pasa</i> , king	Persian, <i>padshah</i>	comp. of <i>pa</i> , high, and <i>sa</i> , contr. of <i>zawe</i> , king.
<i>Na</i> , man	Zend, <i>nar</i> , man	the genitive of <i>ne</i> , heaven.
<i>O</i> , out	Welsh, <i>o</i> , <i>os</i> , out of, &c.	<i>o</i> , out.
<i>E</i> , <i>we</i> , pro. each, all, art.	English, <i>he</i> , <i>we</i> ; Gr. <i>η</i>	<i>e</i> , demonstrative root.
<i>Itc</i> , <i>it</i> , pro. each, and article the	Zend, <i>it</i> ; Saxon, <i>hit</i>	augmented form of article, and pronoun <i>ē</i> .
<i>De</i> , God, high	Welsh, <i>de</i> , separate; Greek, <i>θεος</i>	<i>de</i> , separate.
<i>Ge</i> , <i>ges</i> , offspring, inhabitants	Old Greek, <i>γενω</i> ; Gr., <i>γεννῶμαι</i>	<i>ge</i> , offspring.
<i>Da</i> , <i>ta</i> , land	Welsh, <i>daear</i> , land	<i>da</i> , land, the genitive of <i>de</i> , God, to express that the produce of the land is the gift of the Deity.
<i>Taw</i> , territory		augmented form of <i>da</i> , land.
<i>Mra</i> , I speak	Zend, <i>mraomi</i> , I speak	comp. <i>um</i> , around; <i>re</i> , to ray.
<i>Troôûu</i> , Troes		contr. <i>troôûa</i> (Tlos) <i>U</i> , inhabitants.
⁴ <i>Za</i> , command	Sanskrit, <i>sasa</i> , to command	<i>za</i> , command, from the noun <i>zawe</i> , king.
<i>Kê</i> ,† to give	Welsh, <i>eêd</i> , gift	<i>ge</i> , offspring.
<i>Nêke</i> , gifts		formed from the verb <i>kê</i> , to give, and noun <i>na</i> , men, prefixed.
<i>Welê</i> , to see	Welsh, <i>wela</i> , see	contr. <i>lu</i> , light; <i>êle</i> , going.
<i>Lu</i> , light	Latin, <i>lux</i> , light; Welsh, <i>lluan</i> .	formed from <i>U</i> , a Lycian name for the Deity, and <i>l</i> , to go. The word expresses an emanation of the Deity.
<i>U</i> , name of the Deity	Welsh, <i>Hu</i> , a Bardic name of the Deity.	the name <i>U</i> , to express the Deity, is generally used with a distinguishing adj., as <i>iaa</i> , the High Being; <i>eêrâmu</i> , the High around Being, &c.
<i>Ele</i> , to go	Welsh, <i>elu</i> , to go.	<i>el</i> , or <i>l</i> , to go.
<i>Ek</i> , <i>ueh</i> , high	Welsh, <i>ue</i> .	<i>ueh</i> , an interjectional sound of surprise.

* The word *ap*, in Lycian, owes its form, as in the Welsh, to its use as a prefix, although in a different way. The root *pa* is one of the labial sounds first pronounced by a child, and is related to the reduplicated sound *ba*, in baby, and to *pa*, in *pater*. In the formation of a compound in Lycian, the initial consonant of the first word is commonly reduplicated in the second word contained in the compound, whilst by contraction the first initial is elided, as in the compound term *repssê*, the farms of a city territory, formed from the words *pre* and *ssc*. In like manner the compound term formed from the root *pa*, and *itade*, the father, instead of appearing *papitade*, takes the form of *apitade*, a title in the inscriptions applied to the son of Cyrus; and, in like manner, the compound term formed from the root *pa*, and *una*, mother, instead of appearing *paprûna*, takes the form of *aprûna* or *waprûna*, a term in the epitaphs designating a son, but literally signifying the son of the mother. In this way, by the combined action of the laws of contraction and reduplication, the word *rep*, city territory, has been formed from *pre*, city territory, (both forms of the word being used in the inscriptions), and the word *ap*, son, from the root *pa*.

† The primary idea in the Lycian word *kê*, to give, is shown by the related word *ge*, offspring, in the same way that the primary idea of *oûe*, to offer, is shown by *ow*, to breathe out, both terms expressing the free will or spontaneous nature of a gift or offering.

DISCUSSION.

Mr. E. R. HODGES said: Any attempt to throw light upon so interesting a country as Lycia, and to aid in the elucidation of its hitherto unknown language, will be welcomed by every philologist and student of ancient history. In this sense we are glad to welcome the very learned and valuable paper of Mr. Croggan as a most acceptable contribution towards the elucidation of a very difficult subject. The subject is not, I am happy to say, entirely *new* to me, I have already, in my article on the *Lycian language and inscriptions*, published in the "English Cyclopædia," stated what are the opinions of the most competent scholars as to the Lycian language, and I have assumed with Mr. Daniel Sharpe that the existing remains of the so-called Lycian language date from a time *subsequent* to the Persian occupation of the country. In fact, the monument here translated for us by Mr. Croggan is of the *Persian* era; and, hence, I doubt very much if any *real Lycian* inscription has come down to us. The coincidence between certain Lycian words and some Keltic words, particularly in the Welsh and Cornish, as pointed out by Mr. Croggan, are exceedingly interesting; but they are not sufficient in number to give a *character* to the language. We must, therefore, while quite admitting that there may be a Keltic element in the language, refuse our assent to its being decidedly of that family. It has been shown that there are genuine Irish words in Armenian, and we know the Keltic Gauls occupied, at one time, Galatia, and therefore it will not be surprising if the Kimmeri—Cimbri—Cwmry, whom Asurbanipal, King of Assyria, helped Gyges, King of Lydia, to expel, have left traces of their language in the so-called Lycian. With Mr. Daniel Sharpe and the latest authority on the subject, Herr Moriz Schmidt, professor at Jena, I believe the language of the so-called Lycian inscriptions is Indo-European, and in some measure related to the old Bactrian, or so-called Zend.

Mr. LEWIS said it was well known that ancient but much ridiculed traditions pointed to a connection between Troy and Britain. He thought there was more to be said for those traditions than was generally supposed, and looked upon the paper just read as supporting them so far as it could itself be relied upon.

The PRESIDENT said the author of the paper disclaims a technical acquaintance with philology, and with great ingenuity he endeavours to decipher the Lycian inscriptions through the Welsh and Cornish languages. In order to perfect his case, Mr. Croggan seems to have prefixed, suffixed, and infixes certain letters, and to have deleted others. It would have been more satisfactory had he shewn whether any of the added letters are in substitution of undecipherable letters, and whether there is space on the obelisk for the remaining prefixes and suffixes. The country called Lycia was bounded on the north-east by Pamphylia; on the west and north-west by Caria, which abutted on Mœonia, *i.e.*, Lydia; on the north by Phrygia, which abutted

on Bithynia and Galatia; and on the south by the Mediterranean. Inasmuch as Caria and the neighbouring Cilicia were, to some extent, peopled by Phœnicians, it is probable that part of the aborigines of Lycia were of the same stock. Indeed, Cilicia has been under the sway of Assyrians, Medes, Persians, and Romans, and many Jews have settled there. In after times Lycia was colonized by Cretans, and was later still peopled from Athens. Xanthus was a Cretan settlement, and the worship was spread over the whole country. In the age of Ptolemy, Philadelphus, Lycia, Crete, and Caria were subject to Egypt, and Lycia was reduced to a Roman province by the Emperor Claudius. The country is now occupied principally by Turks, but there are also many Greeks, Armenians, and Arabs, or Syrians. There is no evidence that Lycia was ever inhabited by Celtic peoples. It is said that the *Cymbri* and the *Cimmerii* were of the same stock, and that the Cimmerii invaded Lydia. Again, several tribes of the Galli settled in Galatia, and even in the time of Jerome these Galli had not lost their native language; but if Lycia was Celticized by way of Galatia, it must have been through Phrygia, and the doctrine of atavism can scarcely be applied to languages. The geographical names are mostly Greek. Perhaps the appellation, Mount *Cragus* is nearer the Welsh and Irish *craig*, Gaelic *creag*, Cornish *karak*, than to the Greek *ραχια*, signifying a rocky shore. [By-the-bye, Strabo and Pliny mention a *κρᾶγος* in Cilicia]. Having lately examined the Lycian inscriptions, he (the President) had no doubt whatever that they are cut in the old Greek character.

ORDINARY MEETING,

Held at 37, Arundel Street, Strand, London, on Tuesday, 2nd June, 1874, at 8 p.m.

PROFESSOR LEITNER, PH.D., IN THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

Elections announced:—Fellows: E. RICHMOND HODGES, Esq., CHARLES HAMILTON, Esq.

The following paper was read:—

THE PHYSICAL AND INTELLECTUAL CAPACITIES OF WOMAN EQUAL TO THOSE OF MAN.

By EMMA WALLINGTON.

BELIEVING that the progress of the human race is greatly facilitated by patient investigation of facts and fair discussion, I venture to bring under your notice the oft-debated question of woman's physical and mental capacities.

The doctrine of averages respecting the innate superiority of man's bodily and intellectual powers only affords us an approximation to the truth. For the sake of argument, it may be admitted the majority of men are stronger and more intellectual than the majority of women. But is it true that superiority is exclusively a *male* attribute? We are willing to accept the answer which Nature gives; her voice tells us this superiority is shared by women, and it is the object of this paper to offer evidence of the opinion advanced, in the hope that your kind consideration may cast new light on a vexed question.

The oft-repeated assertion that women are inferior to men, physically and intellectually, has tempted me to investigate the matter, in order to discover whether the said assertion is based on the solid foundation of truth and accurate knowledge, or the superficial one of imperfect observation and loose inference.

First, as to the physical part. Many of the arguments brought forward in support of woman's natural deficiency of muscular strength are clearly founded on data in which feeling and prejudice bear much larger proportions than correct reasoning and strict attention. Facts are proverbially stubborn things, and the chief difficulty in affairs of warm controversy is our reluctance to consider impartially the facts we most dislike; every attempt to ignore or pervert them only serves to prolong and embitter the controversy and delay the advancement of truth. In calling your attention to the physical capabilities of women, I wish it to be understood that the examples I adduce are not always such as I am pleased with, neither am I now discussing what employments I desire to see a woman's physical energy expended in; your attention is drawn to the following illustrations for the purpose of showing that—whether we like it or not—hundreds of thousands of women have always performed, and do to this day perform some of the hardest work of the world. In this country, less than a quarter of a century ago, large numbers of women worked in mines; it was not until an Act of Parliament was passed prohibiting female labour in this direction that the employment of women in mines ceased. Nature had evidently given women the requisite strength to undergo the needful toil, otherwise employers would not have found it worth their while to engage them. Of out-door women agricultural labourers we have between forty and fifty thousand; numbers of these may be seen with their infants on their backs while at their labour, and when the day's field work is finished they can seldom rest until their male partner's evening meal is prepared and the children seen to. To come nearer home, we have only to observe the amount of hard work daily gone through by large numbers of domestic servants; the physical powers they continuously display would put to shame the muscular efforts of many men. Many women are also excellent pedestrians, runners, and rowers; but as matches are seldom or never started on their account, we hear next to nothing of their powers and skill. Elihu Burritt, in his "Walks in the Black Country and Green Border Land," gives a vivid description of the labour of women in brickfields. He was informed that seventy-five per cent. of the persons

employed were females. He describes the different operations the women were engaged in, and saw many of the girls carrying loads of clay averaging 50 lbs. each—some of the girls carrying, it was computed, as much as 30,000 lbs. in a day. This was in 1869, and it was stated that as many as 1,200 females were employed in the district. In April, 1872, appeared in the *Daily Telegraph* an account of the women blacksmiths. In the districts of Netherton, Rowley, Lye Waste, and Bromsgrove, in Staffordshire, the writer found thousands of women employed in this laborious occupation; he gives a full description of their work, and observes that their arms were of prodigious size and strength. If we go abroad we find similar examples. The Indian women lead lives as laborious as their lords. Mrs. Jameson has shown what powers of physical endurance are required for the life and the heavy toils the women undergo. Rassam, in his "British Mission to Abyssinia," says, "Few, if any, Abyssinian women can sew; and even if they could it would be deemed highly unbecoming in them to ply the needle in public. Sewing and laundry work are left to the males; spinning and carrying wood and water are tasks apportioned to what we are pleased to term the weaker sex." In the "Recollections of Massimo D'Azeglio," by Count Maffei, we read:—

"Here, on the Lago Maggiore, where I live, suppose a load of chopped wood of half a hundredweight and a few chickens have to be brought from a village half-way up the mountain to the market on the shore, the work of the family is thus distributed:—The wife takes up the heavy load of wood and the husband the poultry. It is curious to hear the peasants, when they try to lift a heavy weight and find it too heavy, drop it, saying, 'It is a woman's work.' In mountainous countries this is the general custom."

A traveller, who had recently returned from Africa, spoke at the first annual meeting of the Female Medical Society as follows:—

"I am a medical man. I have spent several years in Africa, and have seen human nature among tribes whose habits are utterly unlike those of Europe. I had been accustomed to believe that the muscular system of women is necessarily feeble than that of men, and perhaps I might have dogmatized to that effect, but, to my astonishment, I found the African women to be as strong as our men. Not only did I see the proof of this in their work, and in the weights which they lifted, but on examining their arms I found them large and hard beyond all my previous experience. The men, on the contrary, were weak, and their muscles small and flabby. Both facts are accounted for by the habits of the people; the men there are lazy in the extreme; all the hard work is done by the women."

On a recent occasion, Sir Garnet Wolseley, in his speech at the Mansion House banquet given in his honour, alluded to the superiority of the Ashantee women over men as soldiers. With such instances as these before us, it is idle to assert that woman's physical strength is less than man's. The fact of a person's being born a male is no guarantee of his strength; else we should find all men stronger than any women, which we never do. Natural muscular physique, combined with training, produces differences in physical strength equally in both sexes.

Let us now turn to the intellectual side. In a society having kindred objects to your own, a paper was recently read to the

effect that the mental function and physical constitution of the brain in woman differed essentially from that of man. I have not had the advantage of hearing or seeing the paper, and cannot therefore examine its arguments. It is no doubt true there *are* differences, but whether such differences are sufficiently appreciable to warrant the inference of there being a marked and distinguishing dissimilarity in the mental capacity of the sexes appears to me extremely problematical.

It is frequently urged that relatively and absolutely men have larger brains than women, and from this it is concluded women cannot possess an equal amount of intellectual power. For my own part, I think the size of the brain is not always a criterion of mental ability. When we observe what Nature has to declare on the subject, we perceive quality and temperament have more to do with intellectual excellence than quantity. I do not of course dispute that—other things being equal—a large brain has the advantage in power over a smaller one, and man having in proportion to his body the largest brain, gives him the pre-eminence over other animals. But it must be borne in mind that woman, comparatively, has not been surrounded by the same intellectual influences and circumstances as man; the chances of her mental development have been more accidental. Whatever the size of the female brain may be, it cannot be denied many women have, in proportion to their bodies, much larger brains than men, and that some women have larger brains than some men; in such cases, what becomes of the argument of the mental superiority of the male? It is worthy of note, that where men and women, either in physical or intellectual labour, are placed under equal conditions, there you will have an equality of power; *all* the women may not labour with equal success, neither will *all* the men. This is an affair of every day occurrence, which anyone may verify for himself.

As an ounce of fact is of more worth than any quantity of theory, I now proceed to cite a few examples of woman's mental capacity. Curiously enough the mechanical and mathematical sciences are those in which women have particularly distinguished themselves.

Maria Cunitz, born at Schweidnitz in the beginning of the seventeenth century, was educated in ancient and modern languages, medicine and mathematics, and ultimately devoted herself chiefly to astronomy and astrology. In 1651, her book of astronomical tables, entitled "*Urania Propitia*," was published at Frankfort, having appeared previously at Oels, in Silesia. Her object in these astronomical tables was to dispense with the use of logarithms in employing the tables published by Kepler; the preparation of this work must of necessity have required superior intelligence and an immense amount of labour. The Marquise du Châtellet, in the eighteenth century, was the French translator of Newton's "*Principia*." Voltaire, who was acquainted with her, and taught her the English language, says that mathematics and metaphysics were her favourite studies. She first attached herself to Leibnitz, and gave an explana-

tion of a part of his system, in a work written with great ability, entitled "*Institutions de Physique*." Clearness, precision, and elegance, were the leading characteristics of her style. Her translation of Newton's great work stood so high that Delambre always used it whenever he had to make a quotation from Newton in his "*History of Astronomy*."

Madame Lepaute, wife of the eminent Parisian clockmaker, had from her childhood evinced a decided love for the sciences. She became an invaluable assistant to her husband, and in his celebrated work "*Traité d'Horlogerie*," published in 1755, a table of the lengths of pendulums was contributed by his wife.

"Her most important and memorable achievement is the part she had in the performance of the toilsome calculations for Clairaut's investigation of the perturbations of Halley's comet, the expected return of which had already begun to occupy the astronomical world in 1757. When Lalande first proposed the investigation to Clairaut, the latter declined undertaking it alone; whereupon Lalande offered to take upon himself the astronomical calculations, and for this purpose he obtained the co-operation of Madame Lepaute. . . . During six months," he says, "we calculated from morning till night, the consequence of which was that I contracted an illness which changed my constitution for the remainder of my life. Without her assistance Clairaut and I could never have dared to undertake this enormous labour."

Maria Agnesi, of whom it has been said "she would be a prodigy, even without her sex being taken into account," was a native of Milan, and a contemporary of the two last-mentioned ladies. In 1738, when only "twenty years of age, she published at Milan a collection in Latin of nearly two hundred philosophical propositions, embracing every branch of natural and moral science, which, the title page declared, she had been in the habit of explaining extemporaneously, and defending from objections in frequent disputations held at her house in presence of learned men of the highest eminence; and it appears from the preface that a number of these theses had been in circulation for some time." In 1748 was published, at Bologna, her " *Istituizioni Analitiche ad uso della Gioventu Italiana*," in two vols., quarto. The late Professor de Morgan described this work as a "well-matured treatise on algebra, and the differential and integral calculus inferior to none in its day in knowledge and arrangement, and showing marks of great learning and some originality." A translation of a portion of this work was inserted by the French mathematician, Bossut, in a course of mathematics which he had published in 1775, as the best treatise he could present to his readers on the elements of the differential and integral calculus. An English translation of the whole, which had been made long before by the Rev. John Colson, Lucasian Professor of Mathematics at Cambridge, and commentator of Newton's "*Fluxions*," was published in 1801.

Maria Bassi, a native of Bologna, in 1732, at the age of twenty-one, had the degree of Doctor of Philosophy conferred upon her by the University of Bologna. "The same year the Senate appointed her to a chair with a respectable salary, and with liberty to lecture on any subject in the faculty of philosophy she preferred. She

selected natural philosophy, to which, and to the connected studies of algebra and geometry her genius most inclined."

Caroline Herschel's stupendous astronomical labours are, perhaps, too well known to need enlarging upon. The splendid renown attached to Sir W. Herschel's name was largely due to his sister's superior intelligence, unremitting zeal, and systematic method of arrangement.

The career of the late Mrs. Somerville affords a striking illustration of noble devotion to the most abstruse science, and of successful effort through all the vexatious delays and formidable obstacles which obstruct the intellectual path of many women who are born with a strong impulse for achieving higher things, but who are denied that leisure and freedom of action which the majority of learned men generally secure. Her intellectual capacity was extraordinary, and what is more remarkable, it shone in undiminished vigour to the last. Writing of herself, in her ninety-second year, she says, "I am still able to read books in the higher algebra four or five hours in the morning, and even to solve the problems."

The late Mrs. Janet Taylor was for many years a teacher of navigation. For her improvements in nautical instruments she received medals from the Board of Admiralty and the Trinity Brethren, and several from foreign powers. She was an acknowledged mathematician of the first class, and her logarithmic tables are said to be correct and complete in no ordinary degree.

Miss Maria Mitchell, an American lady, has distinguished herself as an astronomer. In 1865, she was appointed Professor of Astronomy in the Vassar College, Poughkeepsie, New York; she has an excellent observatory under her charge, and teaches astronomy with great success.

Before leaving the mathematical examples, it may not be out of place to offer the testimony of one or two competent teachers as to the abilities displayed by many girls in this branch of study. Miss Jex Blake, in her "Record of Experiences of American Schools and Colleges," says, "In mathematics especially I have heard the proficiency of female students commended." In the report of the third session of the Working Women's College, Mr. R. B. Litchfield observed that "he had never seen better papers than those of the successful candidates." In reference to the Cambridge examination for girls, the *Athenæum* for January, 1868, remarks:—

"Not only do the girls acquit themselves in their favourite studies, as well as the boys, but they shine equally in such studies as mathematics. The examiner in Euclid last year informed us that it was quite a treat to read the girls' Euclid papers, they were so neat and precise; and he also stated a very notable fact, that whereas boys, as a rule, never seem to distinguish between the *essential* steps of a proof and the mere *formal ones*, but as often omit the one as the other, the girls, without an exception, never omit a vital step in their proof, but always exhibit a thorough appreciation of Euclid's method. To estimate rightly the value of this testimony, the reader must bear in mind that this gentleman examined all the Euclid papers, both of boys and girls, throughout England, and could, therefore, accurately compare the relative value of the answering."

In geographical explorations, women have taken an active part

Among them may be mentioned Madame Pfeiffer, Madame Helfer, Madame Semper, Lady Baker, Miss Emma Roberts, Mademoiselle Alexandrine Tinne, and Mrs. Jackson Gwilt.

The study of geology possesses attractions to women. Mrs. Somerville followed it with ardour. In her "Recollections," she speaks of Lady Murchison's superior knowledge of this subject, and her familiar acquaintance with it long before the late Sir Roderick Murchison had given his attention to it. If I have been rightly informed, Miss Lydia Becker is another good geologist.

Botany and natural history have also found their adherents. In the former science Mrs. Somerville again meets us. We have also come across the names of Elizabeth Blackwell, who published a "Curious Herbarium," in 1739; and Elizabeth Christina Von Linné, one of the daughters of the illustrious Swedish naturalist, who discovered the luminous property of the flower of the *Tropæolum* (nasturtium or cress), of which she sent an account to the Royal Academy of Sciences at Stockholm.

Among the lady naturalists we find the name of Maria S. Merian. Lady Bunbury, a friend of Mrs. Somerville's, possessed a great knowledge of conchology. Mary Anning, who died in 1847, is described as of "European fame as a discoverer of fossils—more particularly those of the Ichthyosaurs, Plesiosaurus, Pterodactyle, and many fish in the blue seas of Lyme Regis." It is said the great Ichthyosaurus, now in the British Museum, was purchased by Mr. Hawkins from Miss Anning.

In the Royal College of Science for Ireland, where both sexes study together with the most beneficial results, several ladies have taken prizes and good positions in geology, botany, zoology, chemistry, and physical science. In the session of 1867-8, Matilda Coneys—who had previously highly distinguished herself in chemistry, the laboratory examination, and physical science—gained the first prize for pure mathematics, all her male competitors being exhibitioners. It may be seen, on application for them, that the examination papers of the School of Science bear comparison with those of any college or university in the kingdom. A Madame Emma Chenu, spoken of by Mrs. Somerville, received the degree of M.A. from the Academy of Sciences in Paris; and afterwards obtained the diploma of Licentiate in Mathematical Sciences from the same illustrious society, after passing a successful examination in algebra, trigonometry, analytical geometry, the differential and integral calculi, and astronomy. A Russian lady also took a degree, and a friend of Mrs. Somerville's received a gold medal. It is stated in the "Recollections" that "Mrs. Marcet's conversations on chemistry" first opened out to Faraday's mind that field of science in which he became so illustrious.

Women have also made names for themselves as doctors of medicine, and law, as theological and philosophical writers, as translators, as sculptors, painters, poets, modellers and designers; as enlightened rulers and administrators, and as orators. I could give you exam-

ples, past and present, in all these professions and callings, but I refrain, from fear of exhausting your patience. The illustrations I have offered are, I think, of sufficient importance to support my position; and I have confined myself chiefly to those relating to the highest branches of knowledge, because they are generally the most strongly debated, and the examples in the less scientific departments are more frequently brought under our notice.

Looking at what women have achieved, and are achieving, based as the results are on practical experience—the test of all others the most conclusive—the weight of the evidence goes to show that the intellectual capacity of woman does not differ from man's more than that of men differs among themselves; in other words, the differences are not so much of *sex* as of *individuals*. As far as I know, it has not yet been proved that the mental functions of all men are precisely the same. Given a number of men in any subject of scientific discovery, collectively, they may arrive at similar results; individually, the intellectual process of investigation has varied according to each one's personal constitution, temperament, and previous knowledge.

In a barbarous state, men do not commonly exhibit high mental powers; it is only when civilization has advanced considerably, thereby leaving men free to cultivate their minds, that the intellectual faculties begin to bear fruit—the nervous energy, not being wholly required for the satisfaction of Nature's most pressing wants, seeks with an irresistible impulse to develop itself in other directions. If it be conceded that surrounding circumstances have much to do in determining the mental pursuits of men, the same may be conceded in respect to woman, with this difference: in her case opinions and usages have repressed to a much greater extent the natural growth of her faculties. A refined woman dreads nothing so much as being stigmatized as unwomanly; the more intellectual men are, the more they find themselves objects of respect and admiration; but, till within a recent period, the contrary opinion has generally prevailed in regard to the other sex. In reading the biographies of many celebrated women of former times, one fact is continually forced upon us, namely, the fear those women had of losing the esteem and admiration of their male relatives and acquaintances; the higher their intellectual attainments, the greater their fear of their attainments being known. Bearing in mind the strong influence which circumstances often exert, remembering that the term “learned,” as applied to females, has generally conveyed the sting of reproach instead of the sweet balm of commendation, our wonder is—not that women have accomplished so much entitling them to enter the highest intellectual ranks—but that they should have done anything at all. Many of them must have been endowed with decided genius and uncommon talent, and also great moral courage, thus to have distinguished themselves in spite of the difficulties thrown in their way of acquiring knowledge, and in the face of the depressing influence of opinion.

Many persons are disposed to decry the recent efforts for im-

proving the education of girls ; but, as Miss Becker has truthfully pointed out, previous to the agitation for educational improvement, the general mass of men were as ignorant as the women. Now all this is changed ; we have encouraged the mental advancement of boys, leaving the girls far behind, thus making the intellectual gulf between the sexes wider.

If, as I trust will be admitted, I have shown that physical and mental superiority are not essentially *male* attributes—if the manifestations of trained human intelligence are of any value—let us no longer strive, by dogmatizing on woman's supposed natural inferiority, to lessen the sum total of intellectual excellence. If we believe men and women are intended to live in the world as co-partners and not as aliens, as helpers in all things and not as hindrances in some, as joint partakers in all that calls forth the higher faculties of thought and feeling, let us cast off the mischievous dogma that encourages a faith in *man's* power to elevate himself, while it denies the possession of this power to *woman*, and meets her attempts at emancipation from intellectual thralldom with covert sneers and chilling depreciation. Preeconceived notions cannot for ever withstand the assaults of truth and right reason ; believing this we may, while using every legitimate aid to amelioration, hopefully trust to time to gradually remove the obstructive artificial barriers to woman's mental progress. Turning from the tempting, but oft bewildering masses of speculation, resolutely confining ourselves to the hard and fast, but safer grounds of indisputable fact, we needs must conclude the nearer the sexes are on an intellectual equality, the greater the sum of improvement and happiness occurring to each.

DISCUSSION.

The thanks of the Meeting were voted to the Authoress, and, after some remarks by Dr. CARTER BLAKE,

Mr. GRAZEBROOK said : It is with some reluctance I rise to criticise a most able paper written by a lady, claiming for her sex a mental and physical equality with our sex. But, in the very paper itself, I find an argument essentially feminine, both in its line of reasoning and deductions, although it is written with great ability. Thus you find the feminine tendency to argue from exceptions, and to draw rules from a few remarkable instances. The lady has cited a great number of remarkable women, each equal to, or greater than most men ; but I will engage, if you will take any one of these most remarkable women, that you will find fifty remarkable men at least equal to her in every respect. The lady argues, that because women were employed at severe labour in the coal mines and in agriculture, hence that they were capable of entering into competition with man successfully. But everyone

practically engaged in such trades knows, that women were employed at such labour simply owing to the smaller wages paid them, that they cost much less than men, and that you could hire three women for the wages of one man. Now, if they were generally equal, they could demand and would obtain the same pay for the same time ! As regards the mental comparison, the lady inadvertently defined the difference when she claimed that the girls' exercises in Euclid were more *neatly* written and *exactly* reasoned. Women can compete successfully with man in following out a beaten path ; they can transcend man in attention to minute details, and they can follow where bolder spirits have led. But they have not the grasp of intellect and the vigour and the boldness which make the great discoverer of the unknown. Then, in confirmation of my view that in the divine scheme of creation women are born inferior to man, both in body and mind, I look around to the varying conditions of all parts of the world, and in no race, nor country, nor tribe, nor remote island, excepting one of doubtful authenticity, do I find an instance of woman having the upper hand, and reducing all the males to subjection. Now, if man and women were born equal, out of every hundred of these remote races and peoples in islands and localities apart from each other you would find fifty races where the women had subjected the men, and fifty where the men had subjected the women. Hence, gentlemen, in conclusion, I find that there is no evidence nor proof in this lady's paper that woman is the equal of man in physical power, nor in the larger attributes of the mind which denote mental power, and all the evidences of the outer world seem to prove the direct negative to the proposition.

Mr. J. T. DEXTER wished he had been able to point to examples of genius in women ; but they were so rare as almost to justify the doubt of their possibility. But, on the other hand, there were few men who stood in the first rank of great intellects, and, hitherto, the competition had been unfavourable in its conditions to the development of extraordinary powers in women. Yet, conceding the point that woman had been wanting in the creative faculty which gave to the world invention, explanation, and discovery, the acquisition of knowledge already discovered was made with readier facility and far less strain and exhaustion of nervous energy with woman than with man. This point was conclusively established by the experience of university examiners in arts and medicine, as well as by the rapid strides with which every logical induction and every means of persuasion was mastered by woman applying herself to the pursuit of professional matters. Miss Wallington's historical examples of great excellence in attainments could be paralleled to-day by women making no special pretensions ; and it was significant of something more than equality in the mental power of woman that a Master of Arts and a lady, some years his junior, ran so evenly for the highest prize the University of London had to bestow, that it almost needed the consideration of sex to turn the scale in favour of the male competitor ; the lady having shown equal capacity in other fields, and

all the while discharging the duties (not light ones) of an honorary secretary to a political movement.

Mr. CHURCHILL thought that the fact of the women on the Gold Coast doing all the hard work was evidence of their inferiority. If they could oblige the men to do it and walk beside them, they would, as no one does hard work who can avoid it. Women had shown great power in acquiring knowledge, and in analyzing and arranging. They had followed in mathematics as far as men had led, but not even Mrs. Somerville had advanced a step beyond. They had written good poetry, but not the best; and clever plays, but none that retained their places on the stage. The best play written by a woman is, perhaps, Joanna Baillies' "De Montfort;" but, though acted by Mrs. Siddons and John Kemble, it was coldly received, and soon withdrawn. Angelica Kauffman had painted beautiful pictures; but neither she nor any other woman had painted the best picture in any exhibition.

Mr. PYCROFT, F.S.A., said Sir Isaac Newton and other great men had acknowledged their obligations to their mothers. Rosa Bonheur was equal as a painter to Landseer, and he thought the authoress had proved her case as regarded mathematics.

After some remarks from the Rev. T. R. LLOYD, Dr. KAINES, Mr. WYLLIE, and Mr. JEREMIAH,

Mr. LEWIS said that women, to do physical work equal to that of men, must almost necessarily abjure the maternal functions. The sexes were not so much unequal as different, and to employ a woman to do man's work was like using a chisel instead of a screw-driver, a practice, by the way, to which ladies were rather addicted.

Professor LEITNER said it seemed to him that those who in this country opposed the complete equality of woman with man based their objections on a supposed physical inferiority. When on a tour in the hills of Thibet, which required a great deal of endurance, he found the female coolies equal, if not superior, in that respect to the men. A friend of his, when in Abbeokuta, had been called on to resist an attack by the female soldiers of Dahomey, and bore testimony to their ferocity and prowess. The great facility with which women of savage races deliver children, even while working in the fields, and go on afterwards with their work, was well known. He believed education had had much to do with the alleged inequality of the sexes in Europe. He thought that "difference" was a better term than either superiority or inferiority. There was much secondary literary work done by women now, such as magazine articles and reviews, which, perhaps, accounted for the fluency and want of thoroughness which characterized those productions as a rule. With respect to mathematics, the natives of India, who were not supposed to be superior in intellect, excelled in mathematics, so far as the text-books went, but were deficient in the critical faculty or in discovering the truth of any matter. It was true clever men owed much to clever mothers; but, on the other hand, clever fathers seldom had time to attend to their children, who were left almost

entirely with their mothers. The proper sphere for woman was to excel as a daughter, a sister, a wife, and a mother. The proudest position any human being could occupy was that of guiding and preparing the young for important stages of life.

The PRESIDENT said: There is no doubt that women have excelled in a great deal of intellectual work. The names of De Stäel, Dacier, De Genlis, Corinna, and Sappho might be added to Miss Wallington's list. There is no doubt, also, that women are, to a great extent, kept back by their social status, especially by their inexperience of the realities of life; but treble the cases that can be produced on their behalf, they would, at most, amount to exceptions to the general rule, viz., that intellectually women are inferior to men. Women have never attained the summit of any art or science. Among the female sex we do not find either great composers or great metaphysicians. As artists they are only third rate. We might naturally have expected them to have excelled in cookery; but the noble art of gastronomy is represented by the male sex only. Neither do women possess the faculty of invention. Homer speaks of a Mæonian or Carian woman staining with purple the ivory cheeks of horse bits; and a woman is said to have invented the art of painting. The latter assertion would seem to be founded on a statement in Pliny. The story runs thus: "Butades, of Corinth, invented the art of modelling portraits in the earth, which he used in his trade. His daughter (called by Athenagoras Core, from her birthplace, Corinth), being deeply in love with a young man, who was about to depart on a long journey, traced the profile of his face, as thrown upon the wall by a lamp. Thereupon her father filled in the outlines by compressing clay upon the surface, and so made a face in relief, which he then hardened by means of fire." Assuming that Core did what she is reported to have done, it does not amount to very much after all. There is no doubt also that in some countries the women work harder than the men, and, in fact, do the work of the men; but the laziness of the men does not add to the strength of the women. Allowing for the circumstances in which woman is placed, the physical and mental difference between the sexes may be accounted for by the difference of organization, &c. The female skull is smaller than that of man, not only in horizontal circumference, but also in internal capacity. Its base is more extended, and there is a greater tendency to prognathism. The type of the female skull resembles, to a certain extent, that of the infant, and, in a still greater degree, that of the lower races. Craniologists, indeed, assure us that the female skull preserves very nearly the earlier stage from which the race or tribe has been developed. The weight of the brain is also less than in man. It is likewise laid down that the difference between the sexes as regards the cranial cavity increases with the development of the race, so that the male European excels more the female than does the negro the negress; and hence, with the progress of civilization, the men are in advance of the women, so that the inequality of the sexes increases with civilization.

Miss WALLINGTON replied as follows:—Mr. Grazebrook has declared I have adduced rules from exceptions. My main proposition is that physical and mental superiority are not exclusively male attributes. If facts count for anything, I have shown that this proposition is true; to tell me the illustrations I have given in support of this truth are exceptions does not destroy it. When we speak of man's capacity for high mental acquirements, no one for one moment supposes we mean the whole male race: compared with the mass of mankind we find a small number of men pre-eminently distinguish themselves, and on the strength of the superior attainments of these few we say man possesses the power of climbing the loftiest intellectual heights. To say the examples I brought under your notice, in regard to intellectual women, are exceptions, applies equally to celebrated intellectual men; they are also exceptions; yet we do not allow this fact to destroy the data of our reasoning, neither should we be justified in maintaining that males, as a race, are dévoid of mental power because only a few may make that power manifest. Speaking generally, men intellectually inclined have always felt sure of obtaining honour and renown for superior attainments, to say nothing of pecuniary rewards. Women, generally, have had no such inducements held out to them; the contrary has too often attended the intellectual efforts of women, and this prevailing tone of discouragement must at all times have exercised an influence over the sex very préjudicial to feminine mental progress. Mr. Grazebrook also expresses it as his opinion that men evince greater aptitude than women. Those who have had experience in teaching both sexes, whether in the elementary or the higher branches, science included, are generally agreed that the female sex are quite equal, and sometimes much superior to the male in quickness and mental grasp of the subjects studied. With regard to the same speaker's objection respecting woman's non-entrance into the unknown, I must be allowed to say that my paper only concerned itself with the known; at the outset, I stated my intention to confine the argument to established facts. As far as my experience allows me to judge, I do not perceive that the mind of woman is deficient in the power of conducting a mental inquiry into new fields; it is acknowledged that the mothers of many celebrated men have directed the minds of their sons into channels they might never have entered had not a farseeing judgment and superior mental endowments, combined with striking original power, been near at hand to give them the requisite impulse. Mr. H. B. Churchill has told us that in the greater number of instances I have given of women undergoing the heaviest labours, they—the women—do it because they are compelled. I do not for one instant dispute this, but the fact that women *do* perform it still remains, and it proves they have the natural requisite power, whether they like it or not. I also apprehend that the question of liking the work is outside my paper, and that it is one which applies to both sexes equally; many men dislike hard work, when compelled to perform it, and it is very

questionable whether the majority of men would systematically endure it if left to follow their own inclinations. With respect to a want of originative power in women, I do not think this has by any means been proved. Some people declare no one *can* be original after Shakespeare. With all due admiration for the bard of Avon, I am disposed to say no one can hope to claim an indisputable originality in arts and politics after the Greeks—a people counting several noted women among its brightest spirits.

ORDINARY MEETING,

Held at 37, Arundel Street, Strand, London, on Tuesday, 16th June, 1874, at 8 p.m.

H. B. CHURCHILL, ESQ., VICE-PRESIDENT, IN THE CHAIR.

The Minutes of the preceding Meeting were read and confirmed.

Election announced :—Fellow : E. Croggan, Esq.

The following paper was read :—

REASON AND INSTINCT.

By C. F. AMERY.

THAT man alone is endowed with the faculty of reason is an almost universal assumption. An American Indian metaphysician might, perhaps, concede the possibility that the deer waiting his advent in the happy hunting grounds of the future are the spirits of the deer slain in his native prairies, and would therefore have no difficulty in ascribing a reasoning soul to the lower animals. In like manner, the believer in transmigration may regard any of the lower animals as tenanted with human souls ; but the Christian is too exclusive to admit the beasts of the field into his heaven, and too charitable to consign their spirits to less pleasant regions : hence, to ascribe reasoning power to the “beasts that perish” presents a difficulty which is most easily met by the dogma that the lower animals are endowed with instinct only.

But truth is higher than dogma, and I would fain hope that it is possible to enter upon a patient investigation of the question without incurring such danger as would justify our closing our eyes to the facts bearing upon it.

It is very easy to specify an act of the higher reason and say, “To this the lower animals cannot attain.” In this strain some one—I forget who—remarked that a monkey will warm himself by the fire, but never replenish it with fresh fuel when it burned low. This is a recognised truism, and of a class to close inquiry for a generation

or so ; but the assumption that, *ergo*, the man has reason and the monkey only instinct will hardly bear very close investigation. The monkey attributes the heat to the fire, the man goes a step further, and attributes the fire to the combustion of the wood.

In the one there is a simple recognition of the dependence of a known effect upon a given cause ; in the other the known effect is traced through a chain of causes ; but the monkey, equally with the man, evidences the possession of knowledge based on experience, which knowledge could not be attained without the mental process of recognition of the natural dependence of cause and effect.

With equal truth might it be said of the Australian aborigine that he will fill his stomach with bread, but, although we may communicate to him the whole process of ploughing, sowing, reaping, and bread-making—may give him seed, land, and a supply of food to keep him until the harvest—he will eat the food, and may lie down and die ; but he will never till the ground. We do not argue from this that he has no reason ; the conclusion is simply that his mind is incapable of grasping the whole series of cause and effect, with all the collateral inducements which urge the higher races to till the ground.

The reasoning faculty is not a given quantity. A Newton will find an infinity of matter beyond his capacity to solve, but his reasoning power is as much beyond that of the Australian aborigine as the latter is beyond that of the elephant.

But before we can enter on the investigation with any hope of satisfactory results, it is necessary to have a clear understanding of what is meant by the terms "Reason" and "Instinct ;" and, to begin with the lower, I would define the instincts as those faculties of the animal which impel and direct to the proper performance of all those functions necessary to the preservation of the individual and perpetuation of the species. It is desire guided with unerring aim. Instinct not only requires the assistance of no intellectual effort for its proper performance, but the highest human intellect would utterly fail to compass the simplest aims to which instinct directs.

Instinct depends for its activity upon certain physical conditions and, probably in most cases, upon a provocative secretion. The instinct prompting to sexual intercourse depends for its activity upon a known local secretion, and is destroyed with the removal of the vessels elaborating it. In like manner, the gastric juice may be the seat of the instinct to take food, the nasal secretion in the dog to the instinct of following his prey by scent, while other secretions may be the provocatives which impel the tiger to rend his prey.

It would be difficult to say in how far instinct is dependent for its activity upon cerebral development in cerebrate animals, as we find it quite as active in the non-cerebral ; but while it is probable that in all creatures the activity of the instincts is due to special local secretions or other physical conditions, it is not impossible that both in the cerebrate and non-cerebrate the desire is experienced at the centre of the nervous system.

Instinct is unteachable; experience is no help to the better performance of its functions; it directs every creature by irresistible impulse to the proper gratification of its needs. With mature growth new physical conditions give birth to new instincts; the hart seeks the willing hind; the bird collects materials for its nest without any conception of what the finished building will be like; and the males of most species, impelled by uncontrollable impulse, meet each other in angry combat.

Instinct knows nothing, teaches nothing. Intellect is no aid to the better performance of its functions; but, on the contrary, the instincts are in less perfect activity in the higher than in the lower races of man.

Reason I would define as that faculty of the creature which suggests, but does not irresistibly impel to the employment of fitting means, to the attainment of the desired end, which traces the connection between cause and effect, and enables its possessor to argue from the known to the unknown. Its exercise depends upon the possession of certain other mental faculties, such as the power of observation, of individualization, understanding, memory, the conception of things and ideas, &c., none of which faculties are aids to instinct.

Reason, like instinct, is a mere faculty of the material creature. It is utterly dependent upon observation and memory. The creature cannot reason without a basis of facts stowed in his memory. Instinct is independent of all other faculties. Every creature endowed with reason is so in restricted measure only: for every creature endowed with it we may cite an act of which it is incapable; but in no case can we define precisely the attainable limit of the reasoning power in any creature endowed with the faculty.

Instincts, on the contrary, act within precisely defined limits in every creature. Man is endowed with instincts for the most part for the performance of those functions for which the lower animals are endowed with them, but not for all. Neither man nor any other creature possessing mental power is endowed with instinct for compassing those ends for which his measure of mental power suffices. Man has no constructive instinct, and attains only by patient mental labour to the production of artistic designs, such as the bee or the beaver accomplishes by instinct. In the lower kingdom it would be difficult to ascribe with confidence to one group of species an intellectual faculty for the attainment of an end, which another group of species attain to instinctively; but there are grounds for believing that the higher vertebrate animals find their way to a known locality by observation of local peculiarities, while the bee, from any given spot, will fly in a direct line to his hive instinctively.

It will be seen, then, that reason is not a higher development of instinct, but that they are widely varying faculties operating by utterly distinct modes of action, and we have seen also that the two sets of faculty are coexistent in one creature—man. We come now to the inquiry whether the lower animals have not also, like man, a

measure of reason superadded to their instinctive faculties. As regards the invertebrate animals, I know of no facts in support of the assumption; but, as regards the higher vertebrate animals, I believe there will be little difficulty in demonstrating that they have intellectual faculties precisely the same as man's in kind, and acting in the same manner, although widely differing from man's in degree.

But, preliminary to this inquiry, it is necessary that we should look a little more closely into the mental constitution of man, for it will be seen at a glance that he has other faculties besides reason and instinct, some of which, as already said, are absolutely essential to the operation of reason, viz., memory and observation, and most closely allied to the instinctive faculties are the emotions—attachment, fear, hate, jealousy, and the like—which differ from instincts in that they are due for their activity to the mental, and not to the physical state of the creature. These qualities evince themselves in the lower animals precisely as in man, and they vary in measure in different individuals of the same species; from which we are bound to infer that the lower animals, or the highest of them, have an emotional as well as an instinctive life, faculties which give them individual characters and tend to their individual happiness.

Now nearly allied as are these emotional faculties to the instincts, they nevertheless differ essentially from them, on the ground that their activity and display is dependent upon the possession of numerous intellectual powers.

Before the dog can become attached to a man, he must have learnt to individualize him from all other men—he must bear him in memory in absence, and that power of mental conception and memory of the individual involves the abstract conception of man collectively.

We see, then, that the lower animals are endowed not only with mental emotions, but with certain intellectual faculties, without which indeed the emotional states are not possible.

Ascending in the scale of intellectual faculties, we find the lower animals displaying a certain measure of understanding. It is impossible to determine the means and capacity of inter-communication between animals of the same species; but we have ample evidence that the elephant, the horse, and the dog, can be taught to associate abstract ideas with human words. In fact, the possibility of teaching them depends upon their possession of this faculty. It is only by patient labour that the two latter can be taught to understand some dozen or so distinct sentences, but the elephant is capable of mastering almost a whole vocabulary, although unfortunately his faculty of obedience is not high. But even the dog's understanding of some words taught him is very thorough, evidencing a distinct conception of the meaning attached to them, as witness the terrier which has been taught to associate the word "rats" with his nimble foes. At the utterance of the word by his master, his actions leave no doubt that he has a very distinct conception of the unseen prey.

Having traced a correspondence in the instinctive, the emotional and the subordinate intellectual faculties of man and the lower animals, we proceed to the test question. Have the lower animals reason? Is it matter of fact that they employ fitting means, otherwise than instinctively, for the attainment of the desired end? and is there any evidence of their attributing effect to cause, and of arguing from the seen to the unseen?

My experience of elephants is limited, but I believe it is generally found necessary to "establish a raw" somewhere on the top of the head, and when the animal shows more than the usual disposition to be troublesome, the driver prods the sore with a heavy iron weapon. This spot is eagerly selected by flies, and the methods adopted by my elephant to dislodge them are fitting means to the end. She will fill her trunk with dust and spirt it over the sore, or take up a heavy wisp of straw and cover her head with it, and this she appears to do for protection from the sun as well as from the flies; and when these latter are troublesome, feeding on her broad back, where neither trunk nor tail can reach, she selects a fitting long and pliable leafy branch, breaks it down, and throws it on the ground that she may seize it afresh by the butt end, and with it whisks herself so vigorously over every part of her body as to give the flies little enjoyment of her. Whether this is the result of her individual experience or is an art handed down through a long line of ancestry, I know not; but in either case it is a simple act of the higher reason, dictated by just that amount of intellectual power which prompts the savage to attack with the club.

At this point we can draw a line between the reasoning faculty of man and the lower animals. It is only the highest of the latter which in rare instances adopt fitting means, other than instinctive, to compass the desired end. The lowest savage not only adopts, but he adapts his means.

This same elephant has afforded me the best illustration I have met with of the power of the lower animals to trace the connection between cause and effect, and infer the unseen from the seen.

Crossing a grassy plain some few weeks since, the elephant swerved suddenly round and attempted to bolt. The driver dropped from his seat, seized her by the ear, and dragged her along. I saw nothing to account for her evident uneasiness until the driver directed my attention to a smoky cloud on the distant horizon. This was the smoke of wild fire some five miles off. Here we have evidence of a far higher act of reason than the simple one of the dog or the monkey warming himself by the fire, the induction that the smoke was due to fire, added to the acquired experience that fire was dangerous, evinced a mental power of some grasp. The fire could not be seen. A dense belt of forest separated us from it. Indeed, I have frequently known her startled by a column of dust borne up in a whirlwind, which at first glance she mistook for a column of smoke.

With all these facts before us, I think we are bound to concede

to all cerebrate animals mental faculties which, although they may fall infinitely below man's in degree, are, nevertheless, the same in kind. The greatest gulf between the lower animals and man is precisely at that faculty which is commonly regarded as the closest point of contact, viz., constructive power, which in the lower animals is instinctive only, and the non-existence of which as a mental faculty excludes the beasts from all taste and capacity of instruction in art. In this direction they are utterly unteachable.

With patient teaching, the monkey may possibly be brought to employ a stick as a weapon of offence, and connect the ideas of force employed with injury inflicted; but the monkey that will trim his stick with a flint is the visionary missing link of the Darwinians. *The beast only adopts; the lowest races of men adapt*, and this in virtue of the one mental faculty of constructive power, of which they enjoy a monopoly.

Again, the power of connecting cause and effect, although existent, is by no means high. A dog will warm himself many times at the fire before he attributes the heat to it; he has simply found the hearthrug a warm place, and will go to it in the absence of a fire, until he has experienced warmth from several different fire-places, when it dawns slowly on his mind that the fire is the cause of the grateful sensation.

And this slowness of apprehension, this incapacity to trace causes to remote as well as to immediate effects, in the lower animals, is the cause of their almost imperceptible progressive development; and the stimulus to progress is wanting. The same mental power which suggested to the elephant to employ a leafy branch to dislodge the flies from his body was equal to the suggestion to employ a long sapling to dislodge a man or a leopard from a tree; but the occasions on which the wounded elephant drives his foes up a tree are rare, while many thousands of elephants had probably been tormented with flies before the one great mind grasped the leafy branch and the idea of its use together.

This want of readiness in adoption of means, and utter incapacity of adaptation, constitute the principal perceptible points of distinction between the mental powers of the elephant and of the Australian aborigine. That the latter has a far wider range of ideas is indisputable, but this is a question of degree only and not of kind. The mental scope of the highest human minds is wider in excess of the Australian aborigine's than the mental scope of the latter is in excess of that of the elephant.

DISCUSSION.

The thanks of the Meeting having been voted to the Author, Mr. G. ST. CLAIR said that the author of the paper was not an Evolutionist, while evolution alone offered an explanation of instinct

and accounted for the growth of new instincts, as in the pointer and retriever, and sheep dog. An animal at any period of its existence was the product of two factors, viz., itself, as it was born, and the circumstances that had affected it since. When an instinct was born with it, the instinct came from the parents; but if we say the parents also inherited it, and *their* parents before them, and so on continuously, we get no explanation of its origin. The only explanation is that the acts were at first intelligently performed and became instinctive. Instinct is inherited habit, it is automatic reason; and it depends more on local structure than on local secretion, as maintained by the author. The inquiry whether the lower animals possessed any reason was almost superfluous, for unless reason had shown itself in the line of ancestry there could be no growth of instinct; the statement that instinct does what intellect cannot refuted itself, and it was not true that the two are distinct, instinct receiving no aid from experience and intellect.

After some remarks from Mr. EDWARDS, Mr. HODGES, Mr. GRAZEBROOK, Mr. JEREMIAH, Mr. HAMILTON, Dr. KAINES, Dr. CARTER BLAKE, and Mr. LEWIS,

Mr. CHURCHILL said he would add only one instance of canine sagacity, which seemed to have been overlooked. It was that of Mr. Jingle's pointer, which would not follow him into a coppice, and was found on the outside looking earnestly at a notice that "All dogs found trespassing would be shot." The dog, however, who knew that a house was about to fall showed still higher acquirements, and made larger demands on our admiration and credulity. He admired the attainments and the prudence of Prof. Tyndall, who affirmed that if two men were exactly alike in matter and form their characters would be exactly alike also. It might be well to suspend our assent till two such are found.

The following paper was then read :—

CANNIBALISM.

By C. STANILAND WAKE, M.A.I.

MANY cases have been known where shipwrecked sailors and others, driven to the last extremity for food, have killed and eaten their companions. A depraved appetite for human flesh has, moreover, occasionally developed itself in civilized communities, under circumstances which afford no excuse for the fact.* It was long

* These cases are brought together by Dr. Charnock, in a paper entitled "Cannibalism in Europe," read before the Anthropological Society of London ("Anthropological Review," 1866, vol. iv., p. 24).

doubted, however, whether cannibalism existed as a regular custom among any people, cultured or uncultured, and the statements of travellers, who professed to have witnessed it, were received with incredulity. It was not thought possible that man could be so degraded as to feed on the bodies of his fellow men ; but the fact has been fully established, and I propose, in this communication, to trace the area within which the custom can be proved to have existed, and to see what light can be thrown on its origin.

Until recently, it was thought that the home of cannibalism was to be found in the islands of the Pacific. In a paper read before this society, and published in a recent number of its journal, Mr. Kiehl has shown its extreme prevalence among the Papuas. The natives of New Guinea, New Ireland, the Solomon Islands, the Louisiade, and Fiji, are known to have been regular cannibals, and, from the wide extension of the practice, it is extremely probable that it was at one time universal among the Papuas. It was not, however, limited to them in the Pacific. It was undoubtedly known to and used by the Samoans and Tongans, the New Zealanders, the Marquesans, and even the Sandwich Islanders, when those people were first visited by Europeans. In Tonga, nevertheless, the practice was held in abhorrence by most people, and was referred to as a custom which had been introduced by the Fijians. Pickering, the American traveller, gives reasons, indeed, for believing that the cannibalism of the Polynesian Islanders was altogether derived from a Fijian source, and he says that its practice seems to be co-extensive with the Papuan race, "while the surrounding islanders, though often in a less advanced state of society, as generally hold it in horror." This opinion, if correct, is confirmatory of the Papuan affinity sometimes claimed for the Australian aborigines, many of whom are unquestionably cannibals, either ordinarily or when pressed by hunger. It is possible, nevertheless, that the practice may have been a primitive custom of all the peoples of the Pacific, as we find it established as a national institution among a Malay race, the Battas of Sumatra, and, according to the Chinese, it is not unknown to the aborigines of Formosa. Whether cannibalism has had any wide extension on the American continent is questionable. The Caribs of Guiana undoubtedly practised it, and there is reason to believe that some of the North American tribes were accustomed to eat portions of the flesh and to drink the blood of their captives, probably in connection with certain superstitious ceremonies. Captain Cook says that the natives of Nootka Sound brought human skulls and hands to the ships, and were evidently cannibals.

It is certainly remarkable that the second great centre of cannibalism exists among people who agree in various physical characters with the Papuas. This race is negroid, having a dark skin and frizzly hair, but with a nose more prominent than is usual among the peoples of the African continent, and it is among the African peoples that we must seek any parallel to the cannibalism of the Papuas.

This custom is common to many of the negro tribes of the west coast. Captain Burton states that —

“It extends sporadically from the Nun to the Kongo. . . . In the Niger and the Brass, people do not conceal it; in Bonny I have seen all but the act of eating. It is execrated by the Old Kalabarese, whilst practised by their Ibo neighbours to the north-west. The Duallas of Camaroons number it among their ‘country fashions,’ and, though the Mpongwe eschew even the chimpanzee, the Fans invariably eat their foes.”

According to M. Chaillu, it would be thought that the greatest development of the practice was to be found among the Fans, who, when discovered by Du Chaillu, dealt with human flesh as openly as butchers’ meat in an English shambles. Captain Burton, however, says that no human joint is ever seen in the coast settlements. The Fans appear to have advanced to the West Coast from Central Africa, and the German traveller, Schweinfurth, thinks that they are allied to the Zandey, a people of East Central Africa, who, owing to their cannibal propensities, are called by their neighbours Niam-Niam. This name is applied to various other tribes of that region, showing that the practice referred to is not restricted to a single people. The Zandey belong to the negro race; but their neighbours, the Monbuttoo, who are notorious for their cannibalism, appear to be more nearly allied to the Semitic stock. Schweinfurth declares that the Monbuttoo are the most pronounced cannibals on the African continent, warlike expeditions being undertaken by them for the purpose of obtaining human flesh, which forms an important item of their food. Up to a recent period the eating of human flesh was practised by several of the Kafir and Betshuana tribes of South Africa. Their custom was to send out hunting parties, who concealed themselves amongst the rocks and bushes, lying in ambush near roads, gardens, or watering places, for the purpose of capturing women and children, travellers or boys, in search of lost cattle. The native literature of the Zulus and Betshuana contains numerous references to the cannibals, who there, according to Dr. Bleek, “play as prominent a part as the giant man-eating witches in our European nursery tales.”

Cannibalism appears not to be unknown to some of the tribes of India, who belong, probably, to the primitive dark stock. Such are the Gonds of the hill forests of Nagpore, and the Kookees of the mountains of Chittagong. Dr. Spry describes the latter as openly boasting of their feats of cannibalism, and showing, with the strongest expressions of satisfaction, the bones and residue of their fellow creatures who had fallen a prey to their horrible appetites. Reference is made in the Mahá Bhárata to the eating of human flesh by the aborigines of Hindostan, and even by Brahmins and Saniasies, who followed the same custom in their sacred rites.

That cannibalism was not unknown to various members of the Aryan family of peoples must be viewed as probable. It is mentioned by Herodotus as to the Scythian Massagetæ and the Essedones. Cæsar affirms that some of the Gauls, when besieged and in want of provi-

sions, ate their children rather than surrender. The same thing appears to have been customary in Spain, as an old law, cited by Dr. Charnock, declares that "a father besieged in his lord's castle, and pressed by hunger, might eat his own son without incurring any reproach, sooner than surrender without his lord's mandate." St. Jerome refers to the cannibal practices of the Attacoti of Gaul, a British tribe, and there is no sufficient reason why his testimony should be doubted. The ancient Britons were accused of eating the flesh and drinking the blood of their enemies, and the finding, a few years ago, in a shell mound in Caithness, of a child's lower jaw bone having the dental canal laid open as though to enable the enclosed substance to be extracted, was thought by Professor Owen and others to prove that the early inhabitants of North Britain practised cannibalism.

We have thus found that the practice of eating human flesh is, or has been prevalent to some extent among all the less cultured races of mankind, and especially among the negroid peoples of the Pacific and of the African continent. We have now to see what light can be thrown on the origin of that barbarous custom. For this purpose, it will be advisable first to ascertain the reasons assigned for the habit by those who practise it, or to consider any circumstances which have a bearing on the causes which conduce to it. Among the Battas cannibalism is a kind of ceremony used "as a mode of showing their detestation of certain crimes by an ignominious punishment, and as a savage display of revenge and insult to their unfortunate enemies." Besides prisoners of war and their own slain, offenders condemned to death, especially those convicted of adultery, are reserved for that fate. The North American Indians were governed by much the same feeling, the eating of the flesh of an enemy being the highest form of revenge. There was, however, the introduction of a superstitious element which can hardly be said to exist among the Battas. Quite apart from the notion that the cannibal sacrifice was acceptable to the great spirit, there was the belief that the eating of the flesh of an enemy and the drinking of his blood endowed the recipient with the courage of his victim. Such would seem to be the principle which governs the cannibalism of many savage peoples. Thus, of the natives of New Zealand, among whom the custom was formerly universal, Mr. Wood says :—

"As far as can be ascertained, the Maories do not eat their fellow men simply because they have an especial liking for human flesh, although, as might be expected, there are still to be found some men who have contracted a strong taste for the flesh of man. The real reason for the custom is based on the superstitious notion that any one who eats the flesh of another becomes endowed with all the best qualities of the slain person. For this reason a chief will content himself with the left eye of an adversary, that portion of the body being considered as the seat of the soul. A similar idea prevails regarding the blood."

Mr. Wood adds that it is evident from many sources that cannibalism is a custom which depends on warfare. The ideas associated by the New Zealanders with cannibalism are evidenced by the fact

that it was seldom practised between tribes nearly connected. It was thought to be so deadly an insult that reconciliation after it was extremely difficult. The injury inflicted by eating the body of an enemy was, indeed, permanent, as the soul of the person devoured was supposed to be doomed to perpetual fire, *i.e.*, to undergo a continual cooking.

Captain Cook believed that cannibalism had at one time been practised in Tahiti, where the word *taheea* denoted a man eater. Probably the bodies of those offered to the gods were eaten by the sacrificers, instead of, as was afterwards the case, being left to decay. The deity was said to feed on the soul of the victim, and it would not be surprising, therefore, if his worshippers thus dealt with the body. The palms of the hands and the breast were considered by the New Zealanders the best parts of the body for eating purposes, and among the Samoans the hands of the slain warriors were reserved for the priests, who were not allowed any other food so long as the struggle lasted. Cannibalism was with the natives of Samoa essentially a mark of insult, and formerly "the women always attended upon the warriors for the sake of obtaining the bodies of the slain foes, which they dragged from the field, and then cooked, by way of expressing the utmost contempt for them." The process of cooking appears to be viewed with contempt, alike by the New Zealanders, Fijians, Tongans, and Samoans, and to be treated as a pig and put into the oven was therefore the most degrading treatment conceivable. Probably it was to increase the idea of degradation that, when a chief was cooked, every person present was expected to eat a piece of the body, even women and little children having a share. The idea of eating an enemy as a mark of contempt can hardly have been so primitive as that of thus treating him by way of revenge. We see a different, although an analogous idea operating in the minds of the Ashantees of West Africa. According to Bowdich, in the time of war—

"Several of the hearts of the enemy are cut out by the fetich men who follow the army, and the blood and small pieces being mixed (with much ceremony and incantation) with various consecrated herbs, all those who have never killed an enemy before eat a portion, for it is believed that if they did not their vigour and courage would be secretly wasted by the haunting spirit of the deceased."

On the other hand, Mr. Pritchard states that the Fijians are somewhat restrained from cannibalism by the dread of being visited by the spirits of those who are eaten.

Occasionally, the practice of eating human flesh has a somewhat ludicrous motive. It is said of the Battas that they frequently eat the aged and infirm, not as a gratification of the appetite, but to perform a pious ceremony. Thus—

"When a man becomes infirm and weary of the world, he is said to invite his own children to eat him in the season when salt and limes are the cheapest. He then ascends a tree, round which his friends and offspring assemble, and as they shake the tree they join in a funeral dirge, the import of which is, 'The season is

come, the fruit is ripe, and it must descend.' The victim descends, and those that are nearest and dearest to him deprive him of life, and devour his remains in a solemn banquet."

A somewhat analogous custom is said to prevail among the natives of Queensland, in Australia, and there can be little doubt, from the facts which I have elsewhere brought together, that cannibalism in some form or other was at one time universal among the natives of the Australian continent. The account given by Mr. Oldfield of the practice among the aborigines of the neighbourhood of Shark's Bay, in the west, shows that it is adopted in times of scarcity of food, parents feeding even on their own children to support life.

The Australian is not the only savage who is sometimes impelled by hunger to feed on human flesh. Thus, the Fuegians, when reduced to almost the last extremity for want of food, eat their old women, killing them in preference to their dogs, the former being worn out and useless, while the latter can assist in catching fish and guanacos. The cases, however, in which cannibalism is practised as a necessity would appear to be rare. It is much more often that the habit arises from a simple desire for human flesh, whatever may have been the origin of that desire. Such would undoubtedly appear to be the case with the Papuas. Dr. Bleek thinks that the cannibal tribes of South Africa became such through the wars which devastated that country about fifty years ago, the practice being retained after the occasion for it had ceased. A traveller, who had personally inspected a large cavern which had formed one of the head quarters of the Betshuana cannibals, states that he found the floor strewn with human bones, which had been hacked and cut to pieces. The Fans and Oshebas of West Africa have as little excuse for the practice of cannibalism as the natives of the South. There does not appear to be among them any scarcity of animal food, and yet both those peoples are said to be confirmed man eaters. Du Chaillu states that the Fans buy the dead of the Osheba tribe, who, in return, buy theirs. The former, moreover, buy the dead of other families than their own, and also the bodies of a great many slaves from other neighbouring tribes. The Niam-Niam and Monbuttoo of East Central Africa also appear to practice cannibalism as a simple matter of taste.

The cannibalism of the Fijians, who are allied to the Papuas, has been characterized as not only a custom but an institution, "entering deeply into, or rather having been formed out of the several elements of Fijian character, and moulded into a semi-religious, semi-social instrument." Its objects were reparation for insult, injury, &c., propitiation of the gods by a kind of sacrifice, and the obtaining of a revenge which should do justice to the wronged and also give pleasure to the gods. According to Dr. Seemann, the greatest insult that one person can still offer to another is to say "I will eat you."* Cannibalism was formerly, however, so common, and

* A Kafir chief speaks of "eating up" a person whom he wishes to ruin.

was practised under such conditions, that the institution became little more than an excuse for the gratification of a depraved appetite. Admiral Wilkes states that it was a matter of habit and taste, and that pieces of human flesh were sent to friends at a distance. Women were frequently kidnapped for cannibal purposes, their flesh being considered preferable to that of men. In times of scarcity families were said to exchange children for eating. Finally, the eating of the body of a person condemned and put to death was regarded as an act of great friendship. In considering the question as to the real origin of cannibalism, it is important to ascertain the general condition of culture presented by those who practice it. Of these peoples, the Australians, the Fuegians, and some of the Pacific Islanders, are in a very uncivilized state. But this is by no means the case with most of the man-eating tribes. Du Chaillu declares that the Fans are the finest, bravest looking set of negroes he had seen in the interior; and elsewhere he states that they left the impression upon him of being the most promising people in all Western Africa. Much the same testimony is borne by Livingstone as to the cannibal Manyema, and by Schweinfurth with reference to the Niam-Niam and the Monbutto, both of whom are noted, as compared with their neighbours, for their artistic skill and for their general good character. The Monbutto especially are said to be "a noble race of men—men who display a certain national pride," and to be "endowed with an intellect and judgment such as few natives in the African wilderness can boast—men to whom one may put a reasonable question, and who will return a reasonable answer." The Papuas, again, display by no means a despicable artistic taste, and they are superior in many points to their less cannibally-inclined neighbours, the light coloured Polynesians.

Such being the case, can it be said that the eating of human flesh is a relic of primitive manners? If it be true, as asserted by some writers, that the practice was derived by the Polynesians from the Papuas, we have certainly the curious fact that nearly all the cannibals now known belong to the dark, negroid stock, which is thought by many anthropologists to be the most primitive in its physical and mental characters. It appears to be true, also, that the cannibalism practised among the lighter and straight-haired peoples is of the kind which consists in the eating of the flesh of an enemy for the purpose of obtaining the qualities with which he was endowed, and it may have originated in a mere feeling of revenge. The other phase of cannibalism cannot be thus accounted for, and without actually imputing the practice to primitive man, who, like the monkeys, was probably a vegetarian, we may, perhaps, affirm that it arose from a scarcity of animal food, after this had come to be recognised as a necessity of life, among a people whose moral sense was but slightly developed. To such a people self-preservation would be indisputably the first law of nature; and the ties of kindred, and the natural affection which subsists among even the lowest savages, would not hinder them from securing it at any cost. That

which at first was, in some sense, a necessity, may afterwards have become a confirmed habit, aided by a superstitious fear of the dead, and a desire to be revenged on an enemy.

There is an aspect of cannibalism that deserves particularly to be referred to before concluding this paper. Dr. Seeman remarks, as to the Fijians, that "in any transaction where the national honour had to be avenged, it was incumbent upon the king and principal chiefs—in fact, a duty they owed to their exalted station—to avenge the insult offered to the country by eating the perpetrators of it." He adds, "I am convinced, however, that there was a religious, as well as a political aspect of this custom. . . . There is a certain degree of religious awe associated with cannibalism, where a national institution, a mysterious hallow akin to a sacrifice to a supreme being, with which only the select few—the tabu class, the priests, chiefs, and higher orders—were deemed fit to be connected." How far cannibalism and the practice of offering human sacrifices to the gods were connected cannot yet be determined. We certainly find them associated among the Pacific Islanders and, according to the Mahâ Bhârata, among the Hindoo Aryans; while in Europe human flesh was said to have been eaten by the frenzied worshippers of Dionysos at his yearly festivals.

DISCUSSION.

Mr. LEWIS reminded the meeting of the statements of Herodotus concerning the Essedones and Massagetæ, who ate their parents, and the latter of whom even slaughtered them for the purpose, their motive being, it was presumed, not love of human flesh but religious superstition.

The PRESIDENT said the author of the paper refers to the area of cannibalism. Diodorus says the Gauls who inhabit farthest north towards Scythia are the most ferocious, and are said to devour human flesh, like the Britanni who inhabit Irin (*i.e.*, Ireland). It had also been recently shown that the custom was formerly in vogue in several parts of Austria. The case referred to by Mr. Wake (quoted from him, the President), in which cannibalism was permitted by law, relates to Spain, and would be found in *Las Siete Partidas*, a code of laws compiled by Alfonso El Sabio. The people of the Sandwich and Marquesan Islands, like those of Tahiti, were perhaps formerly cannibals. The Sandwichers call a cannibal *haina*; the Marquesan word is *kaikaia*.

Reviews, &c.

DESCRIPTIVE ETHNOLOGY OF BENGAL.—By Edward Tuite Dalton, C.S.I. Illustrated by Thirty-eight Lithograph Portraits from Photographs. 4to. Calcutta, 1872.

THE ethnology of the various races of India has been the subject of a great number of "Reports" addressed to the Governments of the different Presidencies, generally embracing a number of other matters, and often leaving the different peoples themselves to occupy a very subordinate position in these "reports." They, however, date from an early period, and frequently contain much valuable anthropological information. It has not been, however, until of late years that a more direct attention has arisen to this important subject, relating to the vast and greatly diversified races of India, and that a more systematic study of these races has taken place. To this end the art of photography has lent the most valid assistance, if it even may not be said itself to have given rise to their extended study. In the great Exhibition of 1862, there was seen a screen covered with a large number of admirable photographs of the people of India, taken with great judgment, in their proper costumes, and many of them engaged in the occupations that were familiar to them. These formed a series of beautiful pictures, of most curious subjects, of intense interest to students of the science of man.

Lord Canning, during the period of his office of Governor-General, and a number of other officers, both European and native, lent their support to this representation of natives, and to the study and comparison of their moral and physical characteristics which such representations suggested. Among these, Mr. Justice, now Sir George Campbell, who has lately been so actively engaged in combatting the famine in Bengal, took up this important anthropological inquiry, having visited many parts of the great country. His "Ethnology of India" was published in 1866 by the Asiatic Society of Bengal. It appeared in the "Journal" of the society, and formed a treatise of some extent. It was hoped that this essay, and another by Colonel Dalton, "On the Kols of Chota-Nagpore," would have occupied the first place in a special ethnological volume of this journal to be issued by the Society.

* About that time a bold proposition was made by Dr. J. Fayrer, to collect a grand ethnological congress in Calcutta of living representatives of the various races of India. By this means it was thought that Englishmen might have the opportunity to behold their diversified fellow-subjects, and that other Europeans might see the most heterogeneous races that could be concentrated in any one city. This scheme was, however, soon abandoned, for, as might have been foreseen, it was found to be impracticable.

Mr. Justice Campbell took an extended view of the tribes of India, under a threefold division—the aborigines, the modern Indians, and the borderers. His views were distinguished for their

boldness and singularity, rather than by their depth. They pointed out the necessity of a much larger and further acquaintance with the tribes.

Those who beheld the splendid photographs of the Exhibition of 1862 had the desire kindled in them to see these faithful pictures perpetuated and extended. They seemed to supply a desideratum of immense interest to Europeans, and the value of which it was next to impossible to overestimate. For an Englishman who had the slightest tinge of science they were objects of unbounded curiosity in themselves; and when it was recollected that the people represented were all our fellow-subjects and compatriots, it seemed almost a duty to make ourselves much better acquainted with them.

The Government of India was moved by the interest taken in the photographs, and by the representations made to them, and decided to do something towards supplying the want so strongly expressed, and so justly entertained by the men of science who had examined the matter. Various considerations were unfolded, and reflections and negotiations took place before any steps were finally taken. At length, a series of smaller photographs was decided upon, which at first were taken in India, and copied in London from negatives sent over. These it was resolved to issue in a work entitled "The People of India," to extend to eight small folio volumes, with descriptions appended to them, written by those most able and best acquainted with the subject. Of this grand work, six volumes have already appeared, containing upwards of 350 photographs.

Another photographic, and a precedent effort was made to the same end, which was also said to have the patronage of the Indian Government. This was a series of larger photographic pictures, relating to Bombay. The work is entitled "The Oriental Races and Tribes, Residents, and Visitors of Bombay," by William Johnson, in imperial quarto. Two volumes, containing fifty plates, of this have appeared, the descriptions by two or three hands only. It is greatly to be lamented that this fine work has not yet been finished by the issue of the third volume which was promised.

It is by the same evolution of the photographic process that this great work of Colonel Dalton's has been brought forth. The Indian Government sent out into the remote districts of Bengal to secure true portraiture of the many wild peoples. Dr. B. Simpson, whose art was most conspicuous in the 1862 Exhibition, was further directed to visit the valley of the Brahmaputra, and to render more complete his beautiful series of pictures of the tribes of India. Then Colonel Dalton was applied to as best able, from his long residence in Assam and Chota-Nagpore, to write the description of these vastly diversified and curious tribes. So that to the Asiatic Society of Bengal, to the Government of Bengal, and above all to Colonel Dalton, we are indebted for this magnificent volume, one of the greatest works devoted to Anthropology which has appeared in an English dress.

If it were the proper time, we might take this occasion to recount the progress and expansion of Anthropology. What twenty years

ago was a mere subordinate section of an official "Report" by an Indian officer, introduced, as it were, by chance, has now been deemed worthy of a fine quarto volume, illustrated by a most faithful series of fine plates, this work demanding for its editor the most accomplished ethnologist in the Indian service.

Colonel Dalton divides the peoples of the province of Bengal into eleven great groups, and describes the tribes embraced under these groups, sometimes amounting to nine in each, in a systematic manner, neither omitting their physical conformation, nor their languages.

It is not an easy matter to arrange the tribes of Bengal upon ethnological principles, and Colonel Dalton often expresses the difficulties and doubts he has in deciding their alliances. Hence, he determines to dispose his work very much geographically, taking the peoples of the north-eastern frontier first, which brings us into immediate contact with the tribes of Assam. These tribes of the north-eastern frontier occupy the six first groups, to be followed by three others, the *Kolarians*, or those whose linguistic affinities are with the Santal, Munda, and their cognates; the *Dravidians*, or those who speak a language allied to the Tamil or Telugu; and the *Aryans*.

His first group, "The Hill Tribes of the North-Eastern Frontier," comprises a number of tribes, with the names of which we have been acquainted in Assam—the Khamtis, the Singphos, the Mishmis, the Abors, the Miris, the Dophlas, the Akas, the Nagas, the Kukis, the Manipuris, the Koupuis, the Mikirs, the Jyntias, the Kasias, and the Garos. The second group, "The Population of the Assam Valley," embraces mainly those tribes which were described in Mr. Brian Hodgson's volume,* published nearly twenty years ago. Colonel Dalton was, when in Assam, familiar with the Khamtis. He says:—

"In 1850, a large colony of fresh settlers from Bor-Khamti, between three and four hundred individuals, under a chief, a scion of one of their best families, migrated to Assam in a body. He was a young man of a remarkably good address, and unusually fair and good looking. He had two wives, one a pure Khamti, the other half Assamese, both good looking girls. They settled a few miles above the old outpost of Saikwah, on the left bank of the Brahmaputra, not far from the Nao Dihing, and when I first visited them, about six months after their arrival, I was surprised to see how rapidly and admirably they had, after their own fashion, established themselves.

"The chief's first wife had frequently visited me at Dibrugarh, and transacted business with me on behalf of her husband and his people, for which she showed great aptitude. As I entered the village, I saw her at the head of the women, returning from their farm labour. Each woman bore an axe and a faggot of wood, but that borne by the chief's wife was a tiny little ornamental implement, and her faggot a miniature bundle of little sticks, neatly cut and tied together, evidently emblematic rather than useful. She received me smilingly, and leading the way to her house, did the honours with grace and dignity. I was lodged in part of the newly-raised priest's quarters, and in the evening was entertained by a very creditable display of fireworks and fire balloons, all of their own making.

"The Khamti's have two great religious festivals in the year—one to celebrate

* On the "Kooch, Bodo, and Dhimal Tribes." Calcutta, 1847.

the birth, the other to mourn the death of Gautama. At these ceremonies boys, dressed up as girls go through posture dances, for which, I believe, Burmese women are celebrated, and at the anniversary of the saint's death, the postures are supposed to be expressive of frantic grief; but as a more distinct commemoration of the birth, a lively representation of an accouchement is acted. One of the boy-girls is put to bed, and waited upon by the others. Presently something like infantile cries are heard, and from beneath the dress of the invalid a young puppy dog is produced squeaking, and carried away and bathed, and treated as a new-born babe" (p. 8).

As will be seen, passages of the greatest interest abound in this grand and comprehensive volume, which embraces all the facts and phases of the life of the tribes of whom it treats—their history as far as it can be traced, their dwellings, mode of life, marriage customs, those of their funerals, deities, priests, food, inheritance, costumes, features and other physical characters, languages, superstitions amusements, traditions, agriculture, arts, and an immense number of peculiarities which belong only to particular races. All these subjects, and others, are considered in a mild and sympathetic manner by our author, who has had many years practical acquaintance with the whole subject, in a lively style, full of thought and reflection. Perhaps it will be most important and attractive to Anthropologists to endeavour to ascertain a few of the ethnological principles by which the author is guided.

It was a remarkable foundation of Mr. Justice Campbell's decisions in descanting upon the ethnology of India, that he took a lawyer's view of the whole matter. He laid it down as an axiom that where any form of liberal institutions prevailed in a tribe, this was a proof, presumptively, of their being of Aryan blood, or of their having a good share of such blood in their veins. In this way he idealized the free institutions of an Anglo-Saxon people, by which they had been distinguished in all ages, and applied this test to determine their alliances on the opposite side of the earth. A fine philosophical principle, but liable to no end of perturbations by influences too subtle at all times to be perceived.

Colonel Dalton has got another ideal—physical beauty, and intellectual and moral excellence—whereby to test by the eye and by practical knowledge their measure of connection among all races, with the assumedly perfect European as a standard. In the confusion and instability of all oriental histories and traditions, that is probably as good a mode of estimation as any that could be fixed upon. It is needless to say that it also must be subject to great vagueness and uncertainty, as the Colonel nowhere binds its application to any fixed rules, and allows his mind to descant freely on the conditions of each particular race. There would be no great certainty of unanimity of opinion upon the question of physical beauty among European races, even any more than upon their moral excellencies. Both would have to be referred to tests—in the one case, we conclude, to the Grecian standard, and in the other to Christianity and to modern intellectual progress. Colonel Dalton's work is a valuable exposition of his own principle, as applied to the races of Bengal.

Perhaps the best explanation of the author's principles may be deduced from the following passage near the conclusion of the volume :—

"We may expect to find, and do find, a certain uniformity of feature pervading all the natives of Hindostan, who may be classed amongst the four great divisions into which the Hindus are divided, and their offshoots, with physical and moral characteristics of one prevailing mould. There is, on the whole, in Hindus of pure blood, a very marked conservation of beauty of feature of the Aryan type. We certainly see great variety, sometimes startling variety, of complexion, not unfrequently unmistakable evidence of mixture of race, and in some classes, as a whole, less delicacy of feature and form than in others" (p. 307).

Even to those who would hesitate to admit the author's postulate, that beauty of feature, to his eye, is the great indication of Aryan blood, the work is of immense value as a storehouse of knowledge upon the multitudinous tribes of Bengal. Let us hear what Colonel Dalton says upon those characters which the most critical ethnologists regard as the truest and purest signs of race.

"Physical characteristics are, after all, the most indelible indications of race. [Nothing could be more explicit than this.] Even where blood is mixed, the source of the different streams may be often traced, one or other fitfully predominating in different generations. I have seen the descendants of Hindu-Assamese, who had been for several generations in the Naga or Abor hills, tricked out as Nagas or Abors, but nevertheless distinguishable at a glance from the people they imitated, and looking quite out of their element" (p. 92).

Surely a proof that the author's eye is one that is well-educated.

That the races of India are very diverse in their origins, there seems to be no doubt. The ancient sacred books relate numerous invasions of people from different sources, who are supposed to have settled in the country, and whose present descendants are more or less mixed with the aboriginal races. Of these diverse and mighty changes in the population during almost countless ages, it should be distinctly understood that it is only by theories and surmises that any rational explanation can be given. This our author is well aware of, and he gives the following passage from Dr. Muir's "Sanskrit Texts" (vol. ii., p. 485) as an explanatory summary of the hypotheses upon this subject now commonly received (p. 244):—

"Regarding the question, whether the non-Aryan tribes of the north and south are themselves of the same stock, Dr. Caldwell remarks that the Dravidians may be confidently regarded as the earliest inhabitants of India, or at least the earliest that extend from the north-west; but it is not so easy to determine whether they are the people whom the Aryans found in possession, or whether they had already been expelled from the north by the irruption of another Scythian nation." *

"Without deciding this point positively, Dr. Caldwell is led by the apparent differences between the Dravidian languages and the aboriginal element in the northern vernaculars to incline to the supposition that the Dravidian idiom must belong to an older stage of Scythian speech; and if this view be correct, it seems to follow that

* The Rev. R. Caldwell, a great authority, is the author of "A Comparative Grammar of the Dravidian, or South Indian Family of Languages, 1856," of which we believe a fresh edition is now being prepared. These Dravidian languages are those spoken by the peoples of the peninsula south of the Vindhya mountains.

the ancestors of the Scythian, or non-Aryan portion of the North Indian population, must have immigrated into India at a later period than the Dravidians, and must have expelled the Dravidians from the greater portion of Northern India before they were themselves subjugated by a new race of Aryan invaders from the north-west. In any case, Dr. Caldwell is persuaded that it was not by the Aryans that the Dravidians were expelled from Northern India, and that as no reference occurs either in Sanskrit or Dravidian to any hostilities between these two races, their primitive relations could never have been otherwise than amicable. The pre-Aryan Scythians, by whom Dr. Caldwell supposes that the Dravidians may have been expelled from the northern provinces, are not, he considers, to be confounded with the Kolas, Santals, Bhils, Doms, and other original tribes of the north, who, he supposes, may have retired into the forests before the Dravidians; or, like the Bhutan tribes, have entered into India from the north-east. The language of the forest tribes Dr. Caldwell considers to exhibit no affinity with the aboriginal element in the North Indian vernacular. We have, therefore, according to the views thus summarily expounded, four separate strata, so to speak, of Indian population—First, and earliest, the forest tribes, such as the Kolas, Santals, Bhils, &c., who may have entered India from the north-east; second, the Dravidians, who entered India from the north-west, and either advanced voluntarily towards their ultimate seats in the south of the peninsula, or were driven by the pressure of subsequent hordes following them in the same direction; third, we have the race (alluded to at the end of the preceding head, No. 2) of Scythian, or non-Aryan immigrants from the north-west, whose language afterwards united with the Sanskrit to form the Prakrit dialect of Northern India. Fourth, the Aryan invaders" (p. 244).

This is a very important passage, and well deserving the consideration of the reader who wishes to understand anything of the ethnology of India. It will be at once seen that its entire foundation has only the basis of *philology*; and it must be acknowledged that the whole of its language bears the tone of *hypothesis*. Still, when it comes to be recollected, that we have been quoting the highest authorities upon the subjects to which they refer, and that we are unable to see further into the confused darkness which envelops the past history of man in India than these authorities, the conclusions sketched out in this passage must be accepted till other and better evidence is found to replace them.

Having thus explained the excellent powers of observation and description possessed by Colonel Dalton, and the unwonted opportunities he has enjoyed, and also, lastly, the philosophy which has actuated his mind in the preparation of his work, it may be considered that we have done enough. What remains of our space will best be devoted to some particular races, in which we may find specimens of his labours, to be given as evidences of what we have said of his qualifications, and, at the same time, to afford the reader light concerning the curious peoples he describes.

But, before we proceed to this point, a further word or two of explanation may be, perhaps, usefully directed to our author's views respecting those who constitute the Aryans of India. The Hindus, a supposed immigrant race, have always been primarily divided into four main castes—the *Brahmins*, *Kshatriyas*, *Vaisyas*, which three first classes assume to themselves the epithet of *twice-born*, and the *Sudras*. These latter have usually been regarded, even by high authorities, as a race of people preceding the Hindus, who were reduced to a servile condition by these immigrants. Colonel Dalton does not look upon the *Sudras* as at all distinct from the other castes of Hindus, but regards the whole of the four primitive castes as of Aryan race. In contradistinction to the usual doctrine, he says, "it is reasonable to suppose that the *Sudras* were from the very first, as they now are, the working bees of the hive, the bone and sinew of the nation, the real supporters of the whole fabric." Having mentioned that the three first castes arrogate to themselves the epithet of *twice-born*, it may also not be superfluous to state what are the rites which constitute this second birth of the Brahmin, Kshatriya, and Vaisya. These important rites are, the (1) *karma bedha*, or piercing of the ear; (2) *chura karana*, or tonsure; (3) *upanayana*, or investiture with the thread.

To show that the *Sudras* are not always of what we should look upon as the servile class, we need only quote our author's interesting account of the *Kayasths* :—

"I believe that in the present day the *Kayasths* arrogate to themselves the position of first amongst commoners, or first of the *Sudras*, but their origin is involved in some mystery. No one appears to know much about them, the sacred writers and bards make no mention of such a class, and they have not, that I can hear of, any annals of their own. They say they came into Bengal in the train of the Brahmins from Kanauj, introduced by Adisura, but this does not account for their origin. The fact seems to be that as organized systems of government were established, a demand for a new class of scribes arose from duties that neither Brahmins nor *Vaisyas* had time, or thought it consistent with their dignity, to attend to, and a fresh dive was made into the great *Sudra* element, and a new order eliminated. Intelligent *Kayasths* made no pretensions to be other than *Sudras*. From their appearance we might say that the first selection was made of people with weak bodies and strong intellects, of small courage but great cunning, and that physical beauty was of less consequence than sharpness of wit. However, they worked their way out of obscurity, and are now boldly in the foreground as a well-defined and very influential class. They are largely employed as clerks in Government offices, and attain to much higher official positions; they supply accountants to the landed gentry, and the native bar opens a wide field for their peculiar talents. The potent pen which has thus elevated them is their favourite object of worship. The festival of *Saipanchami*, observed by most learned Hindus in honour of *Saraswati*, the goddess of learning, is especially celebrated by *Kayasths*. Pens and inkstands are collected, cleaned, and arranged, strewn with flowers and barley blades, and there must be no writing on that day, except with chalk. A puny *Kayasth* will shake the pen thus honoured in the face of a club-bearing athlete or staff-bearing policeman, and declare, often with truth, that he is armed with a more effective weapon than either of them" (p. 313).

Let us now return. Among the Assamese tribes the *Singphos* occupy a conspicuous place, as they are skilled artisans.

"They are generally a fine athletic race, above the ordinary standard in height,

and capable of enduring great fatigue; but their energies are greatly impaired by the use of opium and spirits, in which they freely indulge. The men tie the hair in a large knot on the crown of the head, and wear a jacket of coloured cotton and chequered under garment of the same material, or of silk, or the Burmese 'patso.' The respectable chiefs assume the Shan, or Burmese style of dress, and occasionally short small jackets of China velvet, with gilt or amber buttons. They also wrap themselves in plaids of thick cotton, much in the fashion of Scotch Highlanders. The features are of the Mongolian type, very oblique eyes and eyebrows, mouth wide, cheek bones high, and heavy square jaw bones. Their complexion, never ruddy, varies from a tawny yellow or olive to a dark brown. Hard labour tells on the personal appearance of the f-males, rendering them coarse in feature and awkward in gait; but in the family of the chiefs light-complexioned and pleasing features are sometimes seen. Their dress consists of one piece of coloured cloth, often in large broad horizontal bands of red and blue, fastened round the waist, a jacket, and a scarf. The married women wear their hair, which is abundant, in a large broad knot on the crown of the head, fastened with silver bodkins, with chains and tassels. Maidens wear their hair gathered in a roll, resting on the back of the neck, and similarly secured. They are fond of a particular enamelled bead called *deo-mani*, and all wear as ornaments bright pieces of amber inserted in the holes in the lobe of the ear. The men tattoo their limbs slightly, and all married women are tattooed on both legs, from the ankle to the knee, in broad, parallel bands" (p. 10).

Of the *Abors* it is said :—

"They acknowledge and adore one Supreme being, the great Father of all, and believe in a future state, the condition of which will in some measure depend on the life led here below; but on this question their ideas are undefined, and it is probable that some of them are derived from the Hindu. I have heard them speak of a judge of the dead; but as they gave his name as 'Jam,' they were, no doubt, thinking of the 'Yama' of the Hindus.

"They have no hereditary priesthood, but there are persons called Deodars, who acquire the position of augurs or soothsayers, from their superior knowledge of omens, and how to observe them. The examination of the entrails of birds and of a pig's liver appears to be the most usual method of divination. On visiting Bomjir, a pig's liver was brought to me on a tray, and I was asked what I thought of it. I said it was good, healthy-looking liver. They replied, 'But what does it reveal in regard to your intentions in visiting us?' I suggested they should find that out from my words and looks. They rejoined that the words and faces of men were ever fallacious, but that pig's liver never deceived them" (p. 25).

The *Nagas* constitute a tribe of great interest in Upper Assam.

"On our assuming the Government of Upper Assam, attention was soon directed to the cold-blooded murders committed by the Nagas on British subjects, and several expeditions to their hills were undertaken with the view of putting a stop to the practice. We thus became acquainted with various tribes of Abors, that is, independent Nagas. It was the custom of these clans to allow matrimony to those only who made themselves as hideous as possible by having their faces elaborately tattooed. The process of disfiguration is carried to such a length, that it gives them an unnatural darkness of complexion, and that fearful look which results when a white man blackens his face. To this rite of disfiguration they are not admitted till they have taken a human scalp or a skull, or shared in some expedition in which scalps and skulls were taken. It is by no means essential that the skulls or scalps should be trophies of honourable warfare, or that they should even be taken from the bodies of declared enemies. A skull may be acquired by the blackest treachery; but so long as the victim was not a member of the clan, it is accepted as a chivalrous offering of a true knight to his lady. The various tribes were gradually induced to enter into engagements to give up the horrible custom; but how, in restraining from it, they satisfied the cravings of the young women for this singular marriage present, I know not" (p. 40).

"Marriages are contracted comparatively late in life. This was the necessary consequence of the condition that it must not take place till the candidate for a bride could present her with a gory token of his love; but there is also a price on the young lady, and the youth unable to pay, often serves like Jacob for his wife, and at the end of his servitude is in like manner provided and set up by his father-in-law. The Nagas confine themselves to one wife, who has to work hard, but is otherwise well treated. They participate with their husbands in all festivities and social amusements.

"The Naga war dances commence with a review or sham fight. I witnessed one at Sangnoi, in which vast numbers were engaged. The warriors were armed with a spear, used as a javelin, a battle-axe or dao, and a shield of buffalo hide, or of bamboo work, covered with tiger or other skin, large enough to cover the whole person. They advance in extended order, making admirable light infantry practice, for nothing can be seen but the black shields creeping along the ground. They are thus impervious to arrows, but their cover is no protection against a bullet. When sufficiently near to their imaginary enemy, they spring up and fling the spear; this is supposed to take effect; a tuft of grass represents the head of the dead foe; they seize it with the left hand, cut it out with the battle-axe, and retreat with the clod hanging by the grass over their shoulder as the skull or scalp. A sort of triumphant song and dance, in which the women join, follows this.

"They wear singular coronals, made of pieces cut out of large shells, and on the crown of the head a little periwinkle-shaped basket-work cap, black, with a scarlet border, with peacocks' feathers and goats' hair dyed scarlet. Necklaces, bracelets, armlets, of beads, shells, brass, and of cane-work, are worn in profusion, but no drapery to speak of. The girdle is of polished plates of brass, with a kind of double stomacher above and below. A very small apron of black cloth, decorated with small shells, is seen below this in most of the tribes; but I have seen tribes who wore nothing of the kind. The legs are also ornamented with bands of cane, coloured red. The arms are a gleaming pole-axe, with a short, black handle, decorated with a tuft of red goats' hair, a broad-headed barbed spear, the shaft of which is covered with coloured hair like a brush, and a shield of buffalo hide from four to five feet long. The women's costume is simpler, consisting of necklaces and an apron, or sometimes *without an apron*" (p. 41).

We pass on now to group seven, the Kolarians, or tribes speaking the now despised Kol language or its dialects. These are regarded as some of the most primitive people of India.

"The *Juangs*," Colonel Dalton says, "are in habits and customs the most primitive people I have met with or read of. They occupy a hill country, in which stone implements, the earliest specimens of human ingenuity that we possess, are occasionally found, and though they have now abandoned the use of such implements, and have lost the art of making them, it is not improbable that they are the direct descendants of those ancient stone cutters, and that we have in the *Juangs* representatives of the stone age *in situ*. Until foreigners came amongst them, they must have used such weapons or none, for they had no knowledge whatever of metals. They have no iron smiths, no smelters of iron. They have no word in their own language for iron or other metals. They neither spin nor weave, nor have they ever attained to the simplest knowledge of pottery.

"Gonasika, one of the largest of their villages, I found to contain twenty-five houses of *Juangs*. The huts are amongst the smallest that human beings ever deliberately constructed as dwellings. They measure about six feet by eight, and are very low, with doors so small as to preclude the idea of a corpulent householder. Scanty as are the above dimensions for a family dwelling, the interior is divided into two compartments, one of which is the store-room, the other used for all domestic arrangements. The 'paterfamilias' and all his belongings of the female sex huddle together in this one stall not much larger than a dog kennel; for the boys there is a separate dormitory. This latter is a building of some pretensions at the entrance of the village. It is constructed with a solid plinth of earth raised about four feet, and has two apartments, one inner and closed, in which the musical instruments of the village are kept and most of the boys sleep. The other is open

on three sides, that is, it has no walls but the eaves spread far beyond the plinth, and the inmates are effectually protected. This is where all guests are lodged, and it makes a convenient travellers' rest.

"The Juangs cultivate in the rudest way, destroying the forest trees by the deadly process of girdling them, burning all they can of the timber when it dries, and sowing in the ashes. They thus raise a little early rice, Indian corn, pulses, pumpkins, sweet potatoes, ginger, and red pepper—seed all thrown into the ground at once, to come up as it can. They are, no doubt, addicted to ardent spirits, and they are obliged to buy what they consume, as they have not acquired the art of distilling or even of brewing rice beer, which every Kol understands.

"My first introduction to the Juangs was in 1866. The females of the group had not amongst them a particle of clothing; their sole covering for purposes of decency consisted in a girdle composed of several strings of beads, from which depended before and behind small curtains of leaves. Adam and Eve sewed fig leaves together and made themselves apions. The Juangs are not so far advanced; they take young shoots of the Asan (*Terminalia tomentosa*), or any tree with long, soft leaves, and arranging them so as to form a flat and scale-like surface of the required size, the sprigs are simply stuck in the girdle fore and aft, and the toilet is complete. The girls were well developed and finely-formed specimens of the race, and as the light, leafy costume left the outlines of the figure entirely nude, they would have made good studies for a sculptor. The beads that form the girdle are small tubes of burnt earthenware made by the wearers. They also wore a profusion of necklaces of glass beads, and brass ornaments in their ears and on their wrists, and it was not till they saw that I had a considerable stock of such articles to dispose of that they got over their shyness and ventured to approach us.

"They made their first appearance at night, and danced by torchlight; it was a wild, weird-like sight. The men sang as they danced, accompanying themselves on deep-sounding tambourines; the girls holding together and circling round them in a solemn and grotesque manner. There was a want of spirit in the performance, for they were shy and timid creatures, and the dancing by torchlight before so many strange spectators was evidently no pleasure to them. They executed the movements under the orders of the men with an unimpassioned obedience, as if they were so many dancing dogs or monkeys. The disarrangement of their leaves in the movements of the dance was a source of great anxiety to them, compelling them frequently to fall out of their places and retreat into the darkness to adjust their plumage. It was the intention of the party to flit by night, as they had appeared; but, moved by an exhibition and liberal distribution of bright glass beads, they were induced to stay that night and give us a performance by daylight.

"Next day they came to my tent at noon, and whilst I conversed with the males on their customs, language, and religion, the girls sat nestling together in a corner, for a long time silent, and motionless as statues; but after an hour or two had elapsed, the crouching nymphs showed signs of life and symptoms of uneasiness, and more attentively regarding them, I found that great tears were dropping from the downcast eyes like dew drops on the green leaves. On my tenderly seeking the cause of their distress, I was told that the leaves were becoming dry, stiff, and uncomfortable, and if they were not allowed to go to the woods for a change, the consequences would be serious, and they certainly could not dance. It was a bright, dry day, and the crisp rustling as they rose to depart confirmed the statement.

"When they returned, arrayed in fresh leaves, we induced them to give us, not only the solemn measure of the evening before, but to perform a variety of sportive dances, some quite dramatic in effect, and it was altogether a most interesting 'ballet.' In one figure the girls moved round in single file, keeping the right hand on the right shoulder of the girl in front; in another, with bodies inclined, they wreathed their arms and advanced and retreated in line. In this movement, the performance bore a strong resemblance to one of the Kol dances. Then we had the bear dance. The girls, acting independently, advance with bodies so much inclined that their hands touch the ground; thus they move not unlike bears, and by a motion from the knees, the bodies wriggle violently, and the broad tails of green leaves flap up and down in a most ludicrous manner.

"The *corps de ballet* were very favourable specimens of the Juang race. They

were belles who had taken evident pains in the arrangement of the simple elements of their toilet. Their hair was gracefully put up, and the leaves disposed of in the most becoming fashion. At Gonasika, I saw them in their more normal state, when they returned from their work in the evening with dishevelled hair, dusty bodies, and disordered attire, *i.e.*, somewhat withered leaves, and it was truly like a dream of the stone age; but each lady had brought back with her fresh material for her evening dress.

"The predominating physical characteristics of the Juangs, as I saw them massed in their village, appeared to me to be great lateral projection of the cheek bones or zygomatic arches and general flatness of feature; forehead upright, but narrow and low, and projecting over a very depressed nasal bone; nose of the pug species, alæ spreading; mouths large, and lips very thick, but upper jaw rarely prognathous, though the lower jaw and chin are receding; hair coarse and frizzly, prevailing colour a reddish brown, from twenty-seven to twenty-nine, inclusive, of Broca's table.

"They are a small race, like the Oraons, the males averaging less than five feet in height; the women not more than four feet eight inches. The Ho girls of Singbhum look like giantesses beside them, and the males in stature and carriage are equally inferior to the Ho men. The Juang males have round shoulders, and walk with a slouching pace. The Hos are upright in carriage, and walk with a manly stride, nor is it necessary to go to Singbhum to find Hos to compare with them. They live among the Juangs."

The marriage ceremonies are described, and the mode of disposal of the dead, which is by burning.

Among the beautiful plates which accompany the volume is one of a Juang man with his bow in his hand, the bamboo arrows hanging from his tangled hair by their barbs; and of a Juang woman, with a profusion of necklaces hanging down to her waist; and another of two Juang girls, full lengths, dressed with armlets, necklaces, girdles, and leaves.

We have quoted freely from this spirited and valuable work of Col. Dalton's, although other quotations of great interest abound in the volume, because it is not likely to be seen by many readers. The cost of its production has been the occasion for its limited circulation. Copies have been placed in many public libraries, and in those of learned Societies, by the liberality of the Indian Government, but few only have got into private ones. The pleasing style of the writer, and his profound knowledge of the subject, make it to be regretted that this fine volume cannot become more generally distributed among the students of Anthropology.

J. B. D.

ON THE OSTEOLOGY AND PECULIARITIES OF THE TASMANIANS, A RACE OF MAN RECENTLY BECOME EXTINCT. By Joseph Barnard Davis, M.D., F.R.S. Haarlem: De Erven Loosjes. 1874.

So little is known of the native race of Tasmania, or Van Diemen's Land, that every contribution bearing on them is welcome, especially when it is from the pen of so eminent an Anthropologist as the author of the present memoir. Dr. J. Barnard Davis is so fortunate as to possess twelve out of the less than forty Tasmanian skulls preserved in museums throughout the world, and also a complete Tas-

manian skeleton, there being only four such skeletons in Europe. These relics of an extinct race are of great scientific value, and Dr. Davis has utilized them for the purpose of placing that value on "permanent record," and of supporting the view which he has always maintained, that the Tasmanians and the Australians constitute two different and distinct races of men. The facts cited in support of this conclusion will probably be accepted as convincing, without the confirmatory testimony of Sir John Lubbock, although we are not yet satisfied that none of the Tasmanians had Australian affinities, or that the special characters of the Tasmanian are not to be found among the aborigines of Australia. The points insisted on by Dr. Davis are as follows:—The colour of the Tasmanians was of a dark brownish hue, while that of the Australians is of a "purplish copper tint." The Tasmanians were a stout, robust-looking people, and rather short; the Australians thin and lank, but taller. The hair of the Tasmanians grew naturally in small cork-screw ringlets; that of the Australians in long flowing ringlets. In nose, jaws, and teeth both races appear to have much in common. The physiognomy of the Tasmanians had a peculiarity which must be described in Dr. Davis's own words:—"It is, in my sight, a particular roundness, a spheroidal form, which manifests itself in all the features. The prognathous mouth and jaws project in a round prominence, which tends slightly towards a muzzle; whilst the short face cut off above the nose makes a somewhat globular appearance, and the forehead is mostly decidedly convex or hemispherical, distinct from the narrowness of the Australian." Dr. Davis quotes with approval Dr. Topinard's description of the Tasmanian skull, the bones of which possess a thickness and heaviness fully equal to those of the Australian, and "constitute a decided peculiarity of the race." Dr. Topinard's researches show that "the Australian much exceeds the Tasmanian cranium in its prognathism," which Dr. Davis considers an important essential difference. It should be noted, however, that the skull of the Tasmanian skeleton described by Dr. Davis is very prognathous—more so, as he himself states, than in the Australian skeleton with which it is compared. The bones of the Tasmanian skeleton are of the usual robustness, differing much from those of the Australian, which are slender. Finally, the brain of the Tasmanian was 1·7 ounce, or 24 grammes heavier than the Australian; or, according to Dr. Topinard's measurements, a greater internal capacity of 107 cubic centimetres. In this element of the comparison, says Dr. Davis, we attain "the surest and most indisputable evidence of the essential difference of these two races of man, and of the cerebral—hence, most probably, intellectual and moral—superiority of the Tasmanian." The first part of this inference is no doubt just, but the evidence of the intellectual and moral superiority supposed is somewhat slight; and, in fact, appears to us to but inconsistent with what we know of the culture of the two races. The Australians would seem to have been the more inventive, but, socially, they and the Tasmanians were about on a par. The ques-

tion as to their relationship must, however, be decided on physical rather than psychological grounds. As to the race affinities of the Tasmanians, the conclusion of Dr. Davis is very instructive. He writes:—"All that can be said with truth is that the Tasmanians are not Australians, they are not Papuans, and they are not Polynesians. Although they may present resemblances to some of these, they differ from them all substantially and essentially. From all this we are justified in asserting that the Tasmanians were one of the most isolated races of mankind which ever existed; that they were a peculiar and distinct race dwelling in their own island, and different from all others." That the Tasmanians were, however, always so isolated, we much doubt, but the links which connected them with other races appear to have been entirely lost. Dr. Davis's very valuable memoir is illustrated by six fine plates of the skeletons and skulls of a male Tasmanian and a male Australian, and of the brain, in two aspects, of a Tasmanian woman.

C. S. W.

THE PROTOPLASMIC THEORY OF LIFE. By John Drysdale, M.D.,
Edin., F.R.M.S. London: Baillière, Tindall, and Cox. 1874.

FROM the preface to this work, we learn that it is based on Dr. Drysdale's inaugural address as President of the Microscopical Society of Liverpool in 1874. The author makes no claim to original discovery, and his object appears to be to supplement and confirm what he had already said as to the biological views of the late Dr. John Fletcher, in a prior work entitled, "Life, and the Equivalence of Force." This writer appears to have been the originator of the protoplasmic theory of life—a theory which postulates that "every action properly called vital, throughout the vegetable and animal kingdoms, results solely from the changes occurring in a structureless, semi-fluid, nitrogenous matter now called protoplasm." It would be impossible, in the space which we have at command, for us to examine that theory fully; and we must content ourselves with referring to a few of the most salient points discussed by Dr. Drysdale in the present work. We are glad to see that our author, while asserting the priority of Fletcher's theory, does credit to the labours of Dr. Beale, whose researches require that he should be accredited as the actual demonstrator of the truth of that which had before only been hypothetically advanced. The theory, *nihil vivum nisi protoplasma*, now established, includes not merely the origin, but also the continuance of life, every particle which goes to form the organized structure and its secretions having first to "enter into and become part of the living, semi-solid matter itself," and the decay of protoplasm being necessary to give rise to the actions which are the marks of vitality. The death of protoplasm must result in the formation of certain by-products as well as of Beale's "formed-material," and Dr. Drysdale points out that it is for organic chemistry to test the existence of those products, and thus confirm or disprove

the theory. As tested by its explanation of blood-formation and nerve-action, the protoplasmic theory would seem to leave little to be desired. The former is strictly a growth and death of bioplasts, "the part that grows and lives constituting the white corpuscles, which pass into the lacteals, and finally into the blood-vessels ; while the part that dies constitutes the serum, or true pabulum, which is still further elaborated by the bioplasts of the blood-vessels, and those floating in the blood itself." Again, the nerves consist of dead formed material, but they require special bioplasts for their formation and repair, and they are "studded at short intervals with bioplasts, or little masses of living matter, which, besides their other living functions, act as little batteries, from which the *vis nervosa*—a mere dead force like all other forces, and possibly electricity—is evolved." Dr. Beale would seem to be of opinion that nerve force is merely electricity, but our author supports the view that, although allied to electricity, it is essentially distinct. The last chapters of Dr. Drysdale's work are devoted to the consideration of the nature of life, the connection of force with life and mind, the physical basis of life, and so-called materialism. The distinction between "property" and "force" is very important, and the definition of life as not a force, but that *action which is involved in the consumption and regeneration of protoplasm*, is consistent with life being a property of the organic body, and not a mere force ; although contrary to the theory of vital force held by Dr. Beale. We have not space to follow our author in his discussion of the nature of consciousness, or the origin of life. His criticism on modern "materialism" is worthy of attention ; and, although we cannot agree with him as to the position to be assigned to Revelation, we heartily recommend his work to the careful study of Anthropologists.

PHYSIOGNOMY.

DR. J. SIMMS, of New York, has discovered a totally new system of physiognomy, the fundamental principles of which he has laid down in his "Nature's Revelations of Character." Whatever may be the value of the system, its author owes little or nothing to the previous physiognomical systems of Jean Baptiste Porta and Lavater. He seems to have broken new ground, and he certainly reads character with great facility. His is no guess work, although his science (or art ?) may not have passed the empirical stage. Dr. Simms, as a modest investigator, is constantly verifying the data from which his conclusions are deduced, and his exposition of his system is marked by many shrewd and humorous touches. Like all genuine lovers of science, he is an enthusiast ; unlike many of them, he has travelled widely and observed much. His journeyings have afforded him many facilities for testing the truth of his numerous observations of human character. His book is profusely illustrated, and he spares

no pains to make his views clear and intelligible. It is a mere truism to assert that all men are, more or less, practical physiognomists (and the more accomplished judges—of physiognomy—they become the better); but it remains to be seen, whether the system, as formulated by Dr. Simms, can, in the hands of others, prove as fruitful in results as in his own. The writer has good reason for knowing in one particular instance that Dr. Simms' estimate of character was remarkably accurate. The diagnosis (owing to the good nature of Dr. Simms) was in a few respects somewhat flattering; but it revealed an acquaintance with something more than the merely superficial character signs. Dr. Simms has been delivering three courses of lectures (upwards of thirty in all) in the city of London, and has had large audiences. His lectures were illustrated by numerous pictures of notorieties of different races, whose physiognomies were certainly very various. At the close of each of his lectures, he examined a certain number of people, young and old, whose characters he appeared to individualize with a truthfulness which was occasionally surprising. Should Dr. Simms' system prove so well based that it will survive honest and intelligent criticism, he will have made a distinct contribution to anthropological science.

ORIGIN OF THE ARYANS.

THE theories of Madame Clémence Royer appear to be attracting considerable attention in the French scientific world. In the last number of the *Revue d'Anthropologie*, an elaborate analysis is given by M. Issaurat of her "Origine de l'Homme et des Sociétés," as well as of the important memoir which she has recently contributed to another journal on "Zoroaster." Madame Royer is desirous that her theories should be criticised by foreign Anthropologists, and we therefore give the following translation of a letter which she has addressed to Herr Virchow, of Berlin:—

"I have the honour to forward through you to the Anthropological and Ethnological Society of Berlin an article on 'Zoroaster: his Epoch and his Doctrine, in Connection with the Migrations of the Aryans,' extracted from the *Revue de Philosophie Positive*, which was published in its numbers for March, April, July, and August, 1874. I think that I have established in this work that the epoch of Zoroaster could be neither anterior to Ninus nor posterior to Cyrus, and that the Keanian dynasty of Iranian tradition ought to be distinguished from that of the Achæmenides, which it precedes. Some probable synchronisms have permitted me to assign to an epoch, which cannot ascend beyond the twenty-fifth century before our era, the separation of the Iranians, or Northern Aryans, and the Hindus, or Southern Aryans, and the flight of the latter to the Indus. From these dates it follows that the Aryans, certainly established in Europe since the age of polished stone, cannot have come there from Asia, where all historical documents bear witness of their recent arrival, representing them as conquerors of a western origin, and that the route followed by their migrations must have been from the West to the East, and from Europe into Asia, by the Thracian peninsula and Asia Minor, and not from the East to the West, by the Caucasus and the Sarmatian plain. I have thought right to add to the printed text manuscript notes pointing out the passages of

Herodotus and Diodorus, which prove the western origin of the Aryan peoples; notes which the exigencies of publication had compelled me to suppress. The results are, as I am aware, contrary to the opinions generally adopted by most Aryan linguists, who have a tendency to deceive themselves as to the antiquity of the written texts which are the objects of their commentaries, and which, notwithstanding the researches made on this subject by English writers, lengthen beyond measure the chronology of the Aryan peoples of Western Asia, on the faith of astronomical calculations that are always retrogressively possible. Already some time ago, at the Congress of Archæology, at Brussels, in 1872 (*Comptes Rendus*, p. 574), and since in the Anthropological Society of Paris (*Bulletins de la Société d'Anthropologie*, tome viii., pp. 502, 678, and 903, and tome ix., p. 54), I have offered various objections to the opinion according to which the fair race originated in Asia, where there are no fair people; or at least they appear either as individual exceptions, or in small erratic groups, whose existence is easily explained by migrations of comparatively recent date from Europe. The principal argument to which I appeal in support of the opinion that the fair race is indigenous in Europe, and has furnished to the European peninsula (an island as late as the beginning of the quaternary geological epoch) the most ancient human population, is that in Europe alone most of the infants are fair at birth and become dark only with age. They thus betray by their embryological characters that they belong to a race originally fair, whose mingling with the dark races of the Atlas and of Asia has not been able to change and destroy the influence of atavism, always more powerful in the young than over adults. These premises being laid down, it is easy to demonstrate how the indigenous European fair race has produced in Central Europe (principally by its mixture with the dark race, whose ethnic relations ally them with the Basques, the Guanches, and the Berbers) a dark mongrel stock which, has become the progenitor of the Aryan race, and the principal source of the Aryan migrations. These have reached Asia by following the contours of the Mediterranean basin, and seem to have passed over the Bosphorus towards the commencement of the age of bronze, an epoch which is pointed out as being that of their spreading by the philological works of Ad. Pictet. In another article (published in *La République Française*, 22nd Sept., 1874,) on 'the transition of the chipped-stone period to the age of polished stone,' I have added some developments in support of the same thesis, by discussing and refusing the opinion that the civilization of polished stone was brought into Europe with agriculture, weaving, and pottery, by conquering Aryans come from Asia. I have also the honour, M. le Président, to call your attention to a communication that I have recently made on the same subject to the Anthropological Society of Paris, and which will appear in the next *fascicule* of its bulletins. The same fate has befallen the question of the origin of the Aryans (or, as they have long been called, Indo-Europeans), as all other problems of science. Between two contrary hypotheses, equally possible, the human mind has been led away, by an incomplete study of the facts, to put up with the false. I hope, M. le Président, that you will do me the honour to lay my letter before the Anthropological and Ethnological Society of Berlin, in order that the attention of its members may be drawn to one of the most important questions of the ethnogeny of the white race, on which depends the solution of the subordinate problem of the Celtic and Germanic origins."

JOURNALS.

REVUE D'ANTHROPOLOGIE. Publiée sous la direction de M. Paul Broca. Paris, 1874.

THE fourth volume of Professor Broca's journal sustains the high character which it had previously gained. No. 1 contains a learned memoir by M. Gustave Lagneau, on the "Population of the Valley of the Saone." M. Théophile Chudzinski continues his studies on

the "Anatomy of the Negro," and supplies in an elaborate memoir results of his observations on the muscular system, derived from the dissection of three negroes who died in the Paris hospitals in 1873. This memoir is illustrated by coloured figures. The "Peoples of Central Asia" form the subject of a supplementary article by M. Girard de Rialle, which brings to a focus nearly all that is known relative to those peoples, than whom none are more interesting from an anthropological point of view. M. Rialle is of opinion that both science and humanity are served by "the conquests of Russia" in regions where Islamism on the one side and the savage hordes of the steppes which separate the Oural and the Altaï on the other side, had implanted ignorance, fanaticism, and barbarity on the ruins of Iranian civilization. The interesting people of Patagonia, and the contents of the prehistoric cemeteries and paraderos, or dwellings, of that country, are described by M. Moreno fils, of Buenos Ayres, who visited the Rio Negro for the purpose of collecting objects to add to his anthropological collection. Many of the stone implements found in the graves appear to resemble in form those from other regions. The value of the paper is much increased by a table of measurements of forty-five Tehuelche skulls. A note by General Faïdherbe, on the "Ethnology of the Canary Archipelago," completes the original articles of the first number of this volume of the *Revue*. General Faïdherbe concludes that the population of the Canaries is made up of four elements, Oulofs, Libyans, a fair people from Northern Europe, and Phœnicians. The second number of the *Revue* for 1873 opens with one of Dr. Paul Topinard's valuable memoirs; the present one being on "Pierre Camper," and the famous facial angle called after him. Dr. Topinard shows that this angle is absolutely valueless in craniometry. M. Parrot furnishes a note, illustrated by two plates of flint implements, on the grotto of the church at Excideuil, in the Dordogne. This article is followed by an elaborate description by M. A. Hovelacque of seven gipsy skulls recently added to the museum annexed to M. Broca's anthropological laboratory. This memoir forms an admirable supplement to that of M. Kopernicki, which appeared in the "Archiv für Anthropologie" in 1872. M. Hovelacque, as the result of his general observations, classes the gipsies in two groups. One of these has a more oval, elongated face, features better marked, and a nose more aquiline, while the other has features less spread out and an expression less sharp. The latter type has originated from admixture with inferior elements, while the finer type itself shows the effect of a foreign element, although it has retained certain original characters more persistently than the grosser type. Dr. Topinard has done good service to Anthropology by exhuming from the archives of the Academy of Sciences and publishing a memoir by MM. Meynier and Louis d'Eichthal, on the "Tumuli of the Ancient Inhabitants of Siberia," presented to the Academy in 1862. The existence of the Tchoudi, to whom those mounds are referred by M. Eichwald, would seem to be doubted by the writers of the present memoir, who believe that the tumuli belong to different

races, and were erected at different epochs. Three plates of the objects taken from these Siberian tombs are given in the *Revue*. M. Broca furnishes a note on the Akka, the pigmy race of Central Africa, in which he points out that the two Akka obtained by M. Miani, and sent to Italy, are taller than has been represented, and that, as indicated by these, they are still far from the age when growth is stayed. They may, indeed, be younger than is supposed, as there is reason to believe that the appearance of the second teeth takes place earlier with negroes than with Europeans. In the succeeding number of the *Revue*, M. Broca returns to the Akka, of whom he gives two representations, evidently taken from photographs. M. Broca thinks that the two individuals brought to Europe are affected by rachitism. As to the race generally, he says :—"The Akka differ from negroes by the smallness of their stature, which is less than that of the Boschimans, by the shortness of their lower limbs, by the great projection of their belly—important, but secondary, characters. More important would be their brachycephalism, if it were real, and more important still the pinchiness of their lips, if it were constant and so fully developed as to remind M. Schweinfurth of the appearance of the anthropomorphic apes. But by the colour of their skin, which, although not black, is of a very deep colour, by their prognathism, their receding chin, their flat nose, finally, and above all, by their woolly hair, the Akka belong incontestably to the African group of the negro races." M. Broca thinks this pigmy race was at one time much more widely spread, and that it is verging towards extinction; but he suggests that we should know a little more about them before forming theories as to their origin. In addition to this article on the Akka, the third number of the *Revue* for 1873 contains an important memoir by M. Broca, on the "Hygrometrical Properties of the Skull, considered in their Relations to Craniometry." The facts collected on this subject show that those properties are sources of serious error in craniometry. Newly-exhumed skulls undergo considerable retraction while drying, changing in weight, diameter, and capacity from day to day, and that it is only at the end of five months in cold weather and two months in hot weather that they can be measured with security as to the result. We cannot do more than mention Dr. Béranger-Féraud's memoir on the "Peoples of the Casamance, the West Coast of Inter-tropical Africa;" MM. Daleau and Gassies' account of a grotto at Joliäs, various stone and bone implements from which are figured in the *Revue*; and the memoir of M. de Gaix de Saint-Aymour on the "Megalithic Monuments of the Valley of the Oise," one of which bears the curious name of *Cimetière des Anglais*. Many of the dolmens of the Aveyron are said to be known as the *tombes des Anglais*, a title which seems to spring from the persistence of "the custom of rural populations to impose on the relics of antiquity the names of their traditional enemies."

The fourth number of the *Revue* for 1873, which contains the second part of M. de Saint-Aymour's memoir, opens with a contri-

bution by M. Gustave Lagneau, on the "Ethnogeny of the Peoples of the North of France." The author of this important memoir states that brachycephali and dolichocephali races have dwelt side by side in the North of France from the age of the mammoth and the reindeer, and that probably most of the former belonged to the Celtic race. The Gaëls, who afterwards gave a name to the country, are supposed to have been the same as the Cimbri, and to have belonged to a different stock, agreeing rather with the Germanic peoples, and to have been dolichocephalic. This view, which classes together the Gaëls, Belgians, Cimbri, Germans, Saxons, and Franks, as fair-haired dolichocephali, will be novel to most English readers. In the following memoir, M. Cazalis de Fondocce severely criticises M. Mortillet's opinion that there was an absolute separation between the age of chipped stone implements and that of polished stone, and holds that the change from one to the other was gradual, and due to the advent of more advanced races, who gradually absorbed the older ones without destroying them. Finally, Dr. Sasse fills a hiatus in craniology by supplying the measurements of seventeen Frison skulls, which appear to belong to the dolichocephalic group. In the course of his paper, Dr. Sasse expresses the opinion that the Germans were originally long-headed, their descendants having become short-headed through intermixture with brachycephalic peoples in northern Europe.

Besides its original memoirs, the *Revue d'Anthropologie* contains a vast amount of subsidiary matter. Mention should be made particularly of the critical review by M. de Quatrefages on the Moriori and Maori races of Chatham Island and New Zealand, and that by Dr. Topinard on the Berber race of Algeria. The review of journals gives much information on the progress of Anthropology in the different countries of Europe; but one of the most valuable features of the *Revue* is its bibliography, for which we are indebted to M. A. Dureau.

ZEITSCHRIFT FÜR ETHNOLOGIE. Organ der Berliner Gesellschaft für Anthropologie, Ethnologie, und Urgeschichte. Berlin: Verlag von Wiegandt, Hempel und Parey.

THE "Zeitschrift für Ethnologie" has completed its sixth year of publication, and it well preserves its character as a scientific exponent of Anthropology. During the year 1874 many valuable memoirs have appeared in its pages, one of the chief, which has run through several numbers, being an analysis of Colonel Dalton's "Ethnology of Bengal." Among other memoirs of a similar character is a very exhaustive account of the Sotho negroes, a Kaffir people of the Orange Free State, in South Africa, by Missionar K. Endemann. The opening article in the first part of the "Zeitschrift" for 1874 is on West African fetish worship, which is full of information on that important subject, and is continued in the second part. The author, judging from the initials, is Herr Bastian, and

the same initials appear at the foot of the memoirs on the Austrians and their neighbours, which give a valuable summary of what is known as to their manners and customs. Part iii. of the "Zeitschrift" contains a contribution, illustrated with numerous figures, on the cranial character of the peoples of the Eastern Baltic provinces of Prussia, by Dr. Lissauer, of Danzig. In the same number we have an article by Elias Metschnikoff, on "The Formation of the Eyelid in the Mongolian and Caucasian." A later number contains a valuable article on Slave skulls, from which it appears that all the Slaves are brachycephalic, but that those of the south and west are the most pronouncedly so. Dr. Schwartz contributes a learned memoir on "The (red) Sun-phallus of Antiquity." In part vi. the indefatigable Herr Bastian furnishes an article on marriage relationships, which is full of curious facts, but which would be improved if these were somewhat more systematically arranged.

REVUE DE PHILOGIE ET D'ETHNOGRAPHIE. Paris: Ernest Leroux, 1875.

M. LEROUX is to be congratulated on his having supplied a want which must have long been felt by philologists, in establishing this excellent journal, the first three numbers of which have already appeared, under the able superintendence of M. Ch. E. De Ujfalvy. The titles and authors of the articles, which we have alone space to mention, sufficiently prove the excellence of the contributions. Thus, among other articles, we have "The Symbolism of the Points of Space among the Hindus," by M. de Charencey; "A Vogul Genesis," by M. Lucien Adam; "Comparative Study of the Orugo-Finnic Languages," by the Editor; "Vocabularies of Various African Languages," by M. J. Halévy; "The Origin of the Huns," by M. Koskinen; "Essay on the Ostiack Grammar," by M. Hunfalvy; "On the Atnahs," by M. Pinart; "Jade," by M. Blondel; and "Samoiède Grammar," by M. Grünwald. Many of these memoirs are concerned with subjects, the study of which has, notwithstanding their great importance, been confined to very few persons, and the editor of the *Revue de Philologie* has fortunately secured the co-operation of those best qualified to treat of them. As Anthropologists, we wish every success to the new enterprise.

MATÉRIAUX POUR L'HISTOIRE PRIMITIVE ET NATURELLE DE L'HOMME, &c. Toulouse: E. Cartailhac.

OUR indefatigable corresponding fellow, M. Cartailhac, has sent us the first number of the eleventh volume of his valuable serial. Amongst other matter of interest, it contains reviews of works on the "Archæology of the Baltic Coasts," by C. Grewingk, C. Hostmann,

and H. Genthe, all of whom attribute the bronze articles found in that neighbourhood to the Etruscans, who carried on an extensive commerce with the northern tribes from the fourth to the second centuries before Christ, first by sea, and afterwards, their power being broken up by invasions, overland. M. Grewingk especially alludes to the Greek tomb of the third century on the coast of the gulf of Riga. The reviewer, while admitting an Etruscan influence, contends that many of the forms of bronze objects are of native origin, and it seems but reasonable to suppose that if, as is probable, bronze was first introduced from the south to the north of Europe, the northern population would in time discover the manner of manufacturing it for themselves, and would, either voluntarily or involuntarily, develop new designs.

NOTES.

WE understand that Dr. Inman, V.P.L.A.S., has just brought out a second edition of "Christian Symbolism," with considerable additions (Trübner and Co., 8 vo., cloth, 7s. 6d.).

ERRATUM.—Dr. Simms requests us to state that, in his paper on the "Red Men of North America," at p. 209, "bitter corns" should be read "bitter acorns," and at p. 210, "corn so bitter that I could not eat it" should be read "acorns so bitter that I could not eat them."

THE first number of a journal, with the title "Athenæum Monatschrift für Anthropologie, Hygiene, Moral Statistix, Bevölkerungs- und Culturwissenschaft, Pädagogik, Höhere Politik und die Lehre von den Krankheitsursachen," and under the editorship of Dr. Eduard Reich, has been recently published by Hermann Costenoble, of Jena. As it is the organ of the Royal Leopoldinisch-Carolinische Akademie, we may expect that it will justify its somewhat comprehensive title.

WE learn from Mr. J. R. Mortimer that a short time ago, while a workman was digging at Driffield, in the East Riding of Yorkshire, for gravel, he discovered a round hole in the ground, from three to four feet in diameter, and of about the same depth, containing many fragments of Anglo-Saxon pottery. In addition, were a number of large kidney-shaped lumps of chalk, pierced at one end for suspension, some of the holes showing traces of much wear by friction. The use of these stones appears to be at present uncertain.

MR. PARK HARRISON, M.A., informs the readers of "Nature" (21st Jan.) that Phœnician characters are still in use in Rejang, Lemba, and Passammah, South Sumatra. Several manuscripts on bamboo from this region are, he says, preserved in the library of the India Office. Most of the letters are reversed. We may refer to the fact that Mr. Burnell has recently shown that the Asoka alphabet of Northern India and the Vataluttu of the Tamil country have been derived from the Phœnician characters.

ERRATA in Mr. Croggan's paper on the "Lycian Inscriptions."—*Note to paragraph in preface.*—All the relationships of nouns in the obelisk inscriptions appear to be expressed by the genitive case, &c. In correction of the above, the case inflections in the genitive are those named. Three examples are given of a dative termination in *i*. Prof. Max Muller shows the dative termination *i* to have originally had a locative meaning. The locative termination *ya* is equivalent to *ia*, signifying *in the*, the final vowel being merely the article suffixed, as in *komēzeyā*, dwelling in the towns. The case inflections contained in the obelisk inscriptions are the genitive, dative, and locative. *Note to word natre, second line north-east inscription.*—In prefixing the preposition *a* to the noun *tre*, it is strengthened by the initial consonant *n*, in the same way that the preposition *in* takes an initial consonant in *yntre*, in the cities, in the last line of the inscriptions.

ON the 15th and 16th of April last, an examination was made by Canon Greenwell and party of some of the tumuli, &c., of which there are a good number, in the common pasture "Westwood," adjoining Beverley. Four of these were opened, and in the first, at a depth of about three or four feet, were found a pair of tires, which had no doubt belonged to some ancient Briton's war chariot, and with them other pieces of metal, which were probably the bits of the horses. With the exception of a few little shreds of wood, no other remains either of the chariot, or its horses, or owner were found. The tires were laid flat down, and one rather overlapping the other; their diameter was two feet eight inches. We understand that the wheels will be deposited in the British Museum. The other mounds contained no remains whatever; and a circular pit, which it was thought might be a hut circle, yielded nothing but a few bricks, apparently Roman. From Dr. Thurnam's essay in "Crania Britannica," it appears that only four other examples of ancient British chariot wheels had, prior to 1865, been met with, three of which were at Arras, in Yorkshire; and we are not aware that any others have since been discovered, except the above. For a description of the war chariot of the ancient Britons, and its uses, we refer our readers to the before-mentioned essay of Dr. Thurnam, who appears to think that its use was derived from the East.—*Cran. Brit.*, p. 99.

END OF VOL. I.

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SUPPLEMENT TO ANTHROPOLOGIA.

Final Proceedings of the London Anthropological Society.*

ORDINARY MEETING,

Held at 1, Adam Street, Adelphi, on Friday, 13th November, 1874.

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The routine business (minutes and announcements) having been disposed of, an address was delivered on

A TOUR IN ICELAND, AND AN ATTEMPT TO REACH EAST GREENLAND.

By Professor G. W. LEITNER, Ph.D.

THE author stated that he had it in view to visit Iceland when he left India, being especially stimulated to do so by the occurrence of the millenary festival, but that on arriving in England he experienced great difficulty in finding how to proceed to Iceland, and that so little seemed to be known of the route thither, that the editor of one of the daily papers who wished to send a representative to the festival contemplated sending him by way of Spitzbergen. By accident, Dr. Leitner found that the Danish mail steamers called at Leith, and his first step on board one of these vessels was the first step towards diminishing his enthusiasm for Iceland and Icelanders; the vessel was a floating Walhalla, in which the Norsemen seemed every evening to anticipate their enjoyment in the next world by drinking hard in this, and where numerous and unnecessary discomforts had to be endured. Dr. Leitner visited the Faroe Isles in passing, and found the scenery delightful, and the inhabitants

* The Council desires it to be understood that, in publishing the papers read before the society and the discussions thereon, it accepts no responsibility for any of the statements or opinions contained therein.

characterized by simplicity and kindness of manner, and having music, songs, and legends of their own. They have also an elaborate system of education ; but both in the Faroe Isles and in Iceland, although there is much education, there is little enlightenment. Even the education of the Icelanders is much over-rated, it being stated, for instance, that they all know something of Latin, whereas on one occasion a Latin speech, made by a Hungarian on board the steamer, was acknowledged by a clergyman in pure Icelandic.

The approach to Reykjavik was not exhilarating, and the people were still less so. The first Icelanders Dr. Leitner saw appeared most abject, and, had it not been for the testimony of travellers to the immaculate virtue of the people, he would have thought that everything associated with the most vicious courses of life was stamped on their faces. It is extremely difficult to know the dignitaries of the place when you meet them, and still more difficult to know what to do and what not to do to avoid giving offence. A secretary of the Government shaved for money, and one of three commissioners who were negotiating for the transfer of the Icelanders to Alaska was a bootmaker ; but all Icelanders were imbued with the conviction that they were a main bulwark of civilization, the representatives of everything great and noble in ancient law, and that each of them is descended from a line of kings, and unless visitors kept all this in mind and acted accordingly, their journey was not likely to be successful.

According to the sagas, the Icelanders knew something about courts and palaces, but after a thousand years Reykjavik remained a cluster of huts (mostly wooden), and when an Icelanders wanted a house of two rooms, he usually built two houses adjoining each other, and bored a hole between the two ; while the country houses are not to be distinguished from the side of the mountain on which they stand. The Icelanders had a great reputation for chastity, but the eye of an Anthropologist would detect too many traces of foreign blood to believe this report. They were also accounted very honest, which Dr. Leitner attributed principally to absence of temptation, although the prison was the most desirable residence in the island, on account of its cleanliness, which was simply the result of the absence of occupants. The boasted hospitality and latinity of the Icelanders might be judged from the reply of the Dean of Thingwalla to an application, "*non habeo hospitalitatem ;*" on being presented with two dollars, however, the worthy Dean promised some breakfast, but put the party off with a little bread and milk. Hospitality was based sometimes on religious notions, and sometimes on the absence of hotels. There were no hotels in Iceland, and, to judge from the rapidity with which the Icelanders had been converted from Paganism to Romanism, and from Romanism to Lutheranism, and from other facts, there were no very deep religious principles there either. His experience was that the Icelanders were less hospitable than the Turks, Arabs, Egyptians, Thibetans, Dards, or savage races of Northern Hindostan ; he would instance a request made for ten

dollars for the loan of a ladder, and five dollars per day for the loan of a horse. With respect to learning, it was true a peasant might be found here and there who had heard of Sanskrit, or knew a word of Arabic or Hungarian, but such things as these Dr. Leitner attributed to fragments of printed paper in which travellers had wrapped provisions being left about and picked up by the natives, and spelt over during the long winter nights, in the intervals of license, drunkenness, and sleep. He had seen a leaf of an English comedy put carefully by with some ancient ecclesiastical books on an altar, while the chief collector of the sagas, under whose name they were published, was, he found, unable to read the title page of any of the valuable manuscripts in his collection. There were some men of learning, such as Hjaltalin and others, but their learning had been picked up in Europe. There was no such civilization in Iceland as in Europe, and the Icelanders had in fact remained in a stagnant condition since the fourteenth or fifteenth century; they were no better than, and perhaps hardly so good as, they were five hundred years ago; there were no more homesteads or roads now than there were then, except that, in consequence of the king's visit, seven men were employed to mend the road between Reykjavik and Thingwalla. The other preparations for the welcome of the king were made in much the same proportion. He, on the other hand, took off his hat to every washerwoman, not knowing how highly she might be connected, and invited some of the islanders to his own table, where they had a little taste of human food from the provisions brought from Denmark. He also gave them a constitution, though what they wanted with it Dr. Leitner could not understand, as they had no duty to pay on anything brought to the island, were subsidized by Denmark, and were absolutely free; yet the Icelanders spoke in terms of great ingratitude of Denmark, though what good the latter derived from the connection was a great mystery. Perhaps the constitution was granted, however, to gratify the Danish demagogues, who thought Iceland far enough off to permit them to say anything they liked about it.

Dr. Leitner had never seen an Icelander work; they are not as a rule strong men, and there are not many of them, the last census giving 70,800. The attendance at the grand celebration at Thingwalla was small, and largely made up of foreigners. A number of Americans were there and fired off a quantity of poems to Iceland, in which they called it the fruitful mother of themselves, though how a country so barren and sterile could be the mother of a people like the Americans cannot be conceived. But something must be forgiven to poets, and the unpoetical members of the party soon found out the truth about Iceland.

The Icelanders have no fireplaces. They live huddled up together, and, in defiance of the proverb that "cleanliness is next to godliness," are neither cleanly nor godly. The climate is generally healthy, but the ill results of want of cleanliness are most deplorable, extending even to slight cases of leprosy; and as for godliness, spittoons are provided

and plentifully used in the cathedral. Dr. Leitner remembered sleeping out in the rain at Thingwalla, near a tent. He was awakened by the light of a candle, and was invited to go into the tent, which he unfortunately did. The tent would accommodate three people comfortably, but he found fifteen there, and several others tried to get in; they lay on the top of one another, using each other's heads and feet as pillows. But even this would have been endurable, but for the active search which it was necessary to make at intervals for the only lively inhabitants of Iceland, and which finally drove Dr. Leitner out into the wet again. There was a distinguished Icelandic poet in that tent, who was very popular amongst the ladies—he had assured Dr. Leitner that their affection for him was purely platonic, which, but for that assurance, the doctor would not have conjectured from what he saw in the tent.

Dr. Leitner would have had a tent of his own, and all such apparatus for travel in uncivilized countries, as he was used to in India, but that he was told by distinguished geographers that the island was fully explored, settled, and civilized, whereas the greater part of Jotan Jökul and several valleys were wholly unexplored, although the Vikings and their adventurous descendants had been in possession of the country for a thousand years.

All that is ancient in the sagas can be traced to Norwegian and Danish sources; the remainder is mere nonsense, or taken from other sources and badly put together, and the English editions of them are not worth the paper they are printed on; even the remarkable natural phenomena have produced no native legends. There are no national songs and no national costumes, although in the Faroe Isles both exist. Just now there is a revival, stimulated by Danish money, and a few songs have been written; but there is no original music for them. The only really national thing is the pretty female head-dress. There are scientific societies in Iceland, but they have no life, and do nothing to investigate the natural phenomena of the island. There is only one place where records are kept of the weather, and they are only such as this:—"13th August—Snow fell to-day." Education is carried on by the priests in a lazy sort of way, the schools being closed if a certain number of scholars do not attend; their hymnal is almost identical with the mass still used. They martyred the bishops on becoming Lutherans, because they wanted to confiscate their property. Their religious views are very loose. The priests do not shine by the example of their lives, learning, or activity, and are, as a rule, a lazy, worthless set; while the Roman Catholic priest, who is not allowed by law to preach openly, is a model of industry, has secured many converts, and has shown that a French home can be imitated in Iceland.

Many French fishermen go to Iceland to catch cod, and some French men of war are deputed to watch over them. It was only by accompanying a French boat that Dr. Leitner was fortunate enough to get within sight of the east coast of Greenland, as no amount of money would have induced the descendants of the

bold Vikings to venture across the small distance that separates the island from Greenland. On approaching the coast, however, their progress was stopped by a mass of ice 120 miles long, flanked by numerous detached masses of ice of various and beautiful shapes, though not such as could properly be called icebergs. At this moment the screw of their vessel broke down, and, being deficient in sailing power, they were obliged to drift with the currents, which carried them back to Iceland. These currents and other circumstances led Dr. Leitner to believe that Iceland really was of some use in keeping some of the Arctic chills away from Britain and Norway. There was also good fishing, and if given up to sportsmen, it might have some useful objects in its existence.

The vegetation of Iceland is of the poorest kind. A "forest" at the foot of Hecla consists of a few dwarf birches about five feet high. In the north, Dr. Leitner heard there existed something like a forest, but at Reykjavik there are only three miserable trees.

At Hruna, Dr. Leitner translated an inscription which had baffled the Icelandic and Danish antiquaries: it was in a sort of semi-runic character and a corrupted German dialect, and meant "luck be with thee" (*rathe wis tyne bi*). The inscription was on a baptismal font, which had also some figures, apparently representing Gabriel saluting the Virgin, and was probably brought from or through Lubeck about the fifteenth or sixteenth century. This would not be worth mentioning but for the light it throws on the much over-rated Icelandic learning. Another instance was that of the author of an Anglo-Icelandic vocabulary, who could not speak or understand a word of English, and who had probably compiled his work by cutting up an Anglo-Danish and an Icelandic and Danish vocabulary and sticking the halves together. Nearly all the Icelanders could read, and most could write; but the mere ability to read and write was not synonymous with true education, which was only brought about by contact with cultured minds. Dr. Leitner had gone to Iceland full of enthusiasm, but had come back thoroughly disillusioned, and if he spoke out the truth about Iceland and the Icelanders, he only did it in the hope that it would do them more real good than the flattery they had been used to. He thought the best thing they could do was to go to Alaska, or somewhere else, and leave an island where, in a thousand years, they had done so little, and where they would never do anything without an increased communication with the outer world, which it would not pay to support.

DISCUSSION.

The thanks of the meeting having been voted to Dr. Leitner for his address, and for the exhibition of a great number of interesting objects from the islands visited,

Mr. LOCK inquired about the mineral resources of Iceland; he

thought the inhabitants deserved more credit for their hospitality than Dr. Leitner had given them.

Mr. KARL BLIND was also sorry that Dr. Leitner had been less hospitably received in Iceland than other travellers. Maurer and Möbius gave much information about Iceland, though not mentioned by the author. The people were no doubt behind hand, but had had, and still had, much to contend with, and in their struggle against Danish misrule had shown much of the spirit which led them to seek a new home in a desolate land rather than bow to the tyranny of Harald Haarfäger. To Iceland we owed Snorri Sturlason's "Heimskringla," a saga record, ranking in importance for us with any old Hellenic record of a similar nature. The legends the author had disparaged had a value not dissimilar from that of "Grimm's Tales." The Icelanders had maintained a parliamentary, and for some time a republican form of government, and it was not necessary to impugn their chastity to account for the occasional appearance of foreign types among them.

Mr. JEREMIAH regretted with Mr. Karl Blind the manner in which Dr. Leitner had spoken of the Icelanders. No well-read archæologist could successfully deny that there was an intercourse between Iceland and Ireland very early indeed—at least as far back as the eighth or ninth century of our era. Mr. Anderson, the learned editor of the "Orkneyinga Saga," showed this from the "De Mensurâ Orbis Terræ" of the Irish monk Dicuil, and the "Íslendingabók" of Ari Frodi. Dr. J. H. Todd, in his "War of the Gaedhill with the Gaill" (p. 297), took a similar view.

Dr. CARTER BLAKE thought many Icelanders, and notably Professor Hjaltalin, were imbued with a thoroughly truthful and scientific spirit. The photographs exhibited gave evidence, however, of mixture, disease, and degeneracy. The Gael of Scotland and Ireland had handed down more genuine lyrics than the descendants of the "hardy Norsemen." He did not, however, think with Mr. Karl Blind, that either Irish monks or Tatar colonists formed any part of the Icelandic population; nor could he admit the existence of Ari Thorgilsson, nor of Dicuil, nor the authenticity of his treatise, "De Mensurâ Orbis Terræ."

Mr. BUCKLEY asked whether there were any Celtic manuscripts or relics in Iceland?

Mr. FREDERIC PINCOTT said that no Irish relics had yet been found in Iceland. Respecting Mr. Karl Blind's view, that the sagas were more interesting than the vedas, he would say that the former illustrated the mythology of one division of the Aryan family, but the latter carried us back to the very germ whence arose the mythology that is set forth in the sagas. The sagas were deeply interesting to Teutons and Scandinavians, but the vedas interested the whole human race.

After some remarks from Dr. CLIFTON,

Mr. LEWIS said there had formerly been what might be called a Teutonic superstition, which was now abandoned by every one but

Mr. Freeman and some newspaper writers. A Scandinavian superstition had, however, been set up in its place, and he was glad Dr. Leitner had said what he had, as it would go some way to demolish that superstition also. He had no doubt Dr. Leitner's remarks, though severe, were in the main correct.

The PRESIDENT said some considered Ultima Thule referred to Iceland, others to Foula (*fugl-ig-ey-ey*, "island of birds"), the most northern of the Shetlands. Some derive the name Thule from the Arabic, others from the Phœnician; but there is no word in either language from which the name could have been formed. Foula, by corruption Foule, would easily corrupt to Thule. The interchange of *f* and *ph* and *th* is not uncommon. Instance the Greek *θηρ* and *φηρ*; and the Greek *θεοδωρος* and the Russian Feodor. He, the president, was inclined to think that the supposed Celtic names in Iceland arose from confounding the Icelandic language with the Erse. In like manner, the Irish name Connell had been derived from the old Norse *konr* (a noble man), whereas Connell is an Erse compound.

Dr. LEITNER said, in reply, that his veneration for the old Icelanders had rather increased, because they were evidently all extinct, still, he did not quite know what the old Vikings were like. They were praised by the Scalds it was true, but if the Scalds had not praised them they would not, perhaps, have continued to sing long. The present Vikings allowed their fisheries to be taken away by the Norwegians and French, and, although French boats were sometimes sold there very cheaply, did not make use of them to go far from their island. There were no traditions of Esquimaux drifting to Iceland. As to Irish immigration, some priests had undoubtedly gone and executed some serpentine carvings in some of the churches, which might be taken as relics of serpent worship, but that no relics of tree worship accompanied them, and he thought they probably represented waves. He believed the only way of striking a chord in the heart of the Icelanders was to get drunk with them; but he was not inclined to get drunk, even to win their good opinion.

ORDINARY MEETING,

Held at 1, Adam Street, Adelphi, on Friday, December 11th, 1874.

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

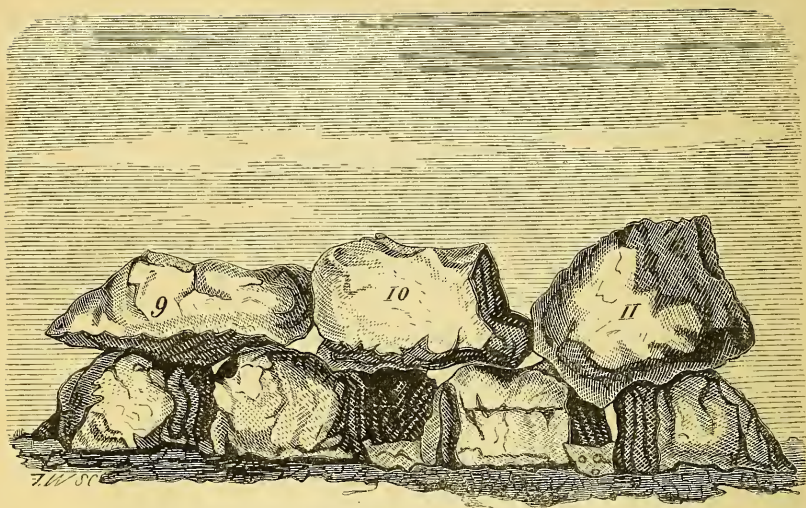
The routine business having been disposed of, a paper was read, of which the following is an abstract :—

HUNEBEDDEN, OR CROMLECHS IN THE PROVINCE
OF DRENTHÉ, HOLLAND.

By D. LUBACH, M.D.

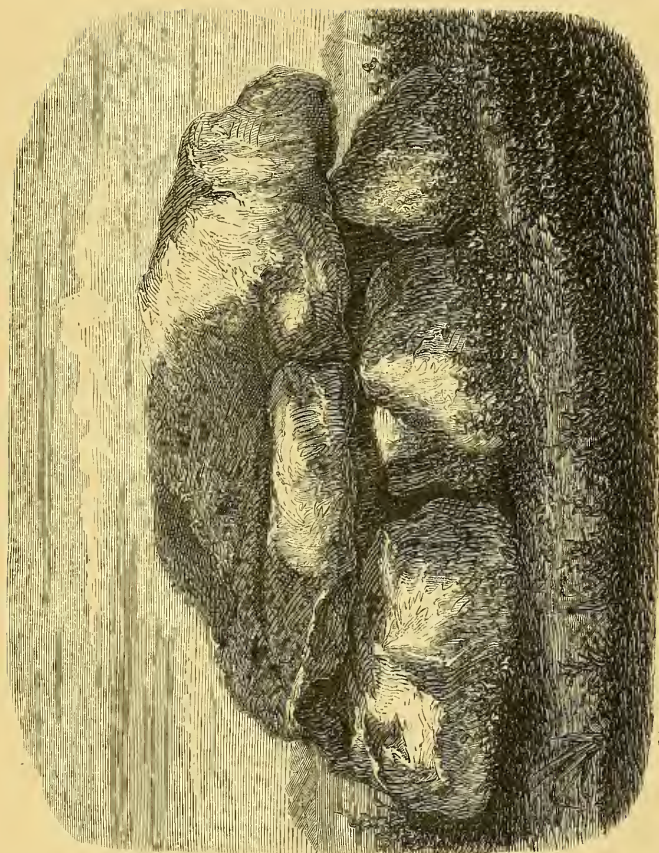
THE province of Drenthé, in Holland, consists of a diluvial plain, of an average height of ten metres above the sea level, great part of which is still uncultivated. It is the only province of the Netherlands in which the Hunebedden are found, with the exception of a doubtful monument in the province of Utrecht, near a village called De Vaarsche, and one at Noordlaren, in Groningen, a village which used to belong to Drenthé. It also contains many tumuli, round, oval, oblong, and square, the superficial dimensions of which vary from three to thirty metres, and their height from one metre to one and a half. Many of these were formerly surrounded by circles of stones which have now disappeared everywhere. They have been found to contain rude urns, adorned with lines or rows of punctures, and containing burnt human bones; other pottery, hair pins, armlets, &c., &c., a few iron implements, and only one stone weapon, but several of bronze. These tumuli are considered by Dutch and German archæologists to be of German origin.

The Hunebedden, of which fifty-five still remain in various states of preservation, consist of two rows of upright stones supporting capstones, usually of granite, and forming a chamber, one or two metres wide and about one metre high, but always wider, and generally higher, at the end nearest the west. Some have a "portal" towards the south, consisting of two rows of two or three stones each, at right angles with one of the longer sides. In Drenthé, these "portals" are not covered by capstones, but in Germany they are, and Dr. Lubach considers the entrance to the chambers to have been at one side. The stones forming the chambers are rough outside but smoother inside, and small holes one centimetre deep have been bored in some of them. The Hunebedden do not appear to have followed any rule of orientation, and many are surrounded at a distance of about three steps by rows of stones; they are frequently situated in a hollow in the midst of a low barrow, and Dr. Lubach believes that they were all originally covered with mounds. The best example remaining is that of Finaarlo, of which an illustration is given, and the length of which is 5·70 metres. The Hunebedden



THE HUNEED OF FINAARLOO.





THE HUNEBED OF NOORDLAREN.

E. VERMONTEN. SC.

have been found to contain, beneath a floor of pebbles, charcoal, and ashes, urns with burnt bones, fragments of rude pottery, and implements of stone, but not of metal; they are considered by the Dutch antiquaries to be the sepulchres of a pre-Germanic and non-metal-using race.

DISCUSSION.

Mr. LEWIS said there was a theory—as he thought entirely erroneous—that our stone circles were simply the surroundings of tumuli which had been removed; in Drenthe, it seemed the tumuli had been left while stones surrounding them had been removed. If the entrances to the Dutch dolmens were at the side, they differed in that respect from those of France and Britain; but it might be possible that the so-called portals were really side chambers, and that the true entrance was at the narrowest end.

After some remarks from Dr. BIKKERS, Dr. BLAKE, Mr. JEREMIAH, and the PRESIDENT, papers were read, of which the following are abstracts:—

ON THE SCAPHOID SKULL OF A POLE.

By Dr. ISIDOR KOPERNICKI, of Cracow.

THE skull in question was once the property of a carpenter born in Cracow, but has for fifteen years belonged to the Anatomical Museum of the University of that city. Its greatest peculiarities are its extraordinary elongation at the expense of its width—due principally to the development of the parietal bones in length—and the numerous proportional deviations which result from it. Its cephalic index is 63, a little greater than that of the scaphoid cranium of a Biegnese boy, described by Professor Calori (61), and more than one-fourth below that of the normal Polish skull; but the general results are perfectly in agreement with the precocious obliteration of the sagittal and mastoid sutures, and with the integrity of the coronal and alisphenoid sutures, and seem to be due to the synostosis of the *two* parietals distinct in their origin, which caused a lateral compression of the superior and middle parts of the cranial vault, compensated by a considerable development of the sinciput forwards and across, as well as of the occiput backwards and downwards.

<i>Principal Measurements.</i>	<i>Polish skull of Kopernicki.</i>	<i>Biegnese skull of Calori.</i>	<i>Australian skull of Barnard Davis.</i>
Internal capacity ..	cent. 1,350	.. 1,646	.. 1,450
Length	mil. 203	.. 208	.. 210
Width	„ 128	.. 126	.. 121
Height	„ 130	.. 139	.. 134
Circumference ..	„ 530	.. 554	.. 553

CRANIA OF THE ROUND BARROWS OF A SECTION OF THE YORKSHIRE WOLDS.

By J. R. MORTIMER, Esq.

A SECTION of the Yorkshire Wolds, from near Driffield on the east to Aldoborough on the west, embracing an area of about 80 square miles, and rising in parts to 800 feet above the sea, contains a very few long barrows, and a large number of round barrows of two varieties, one encircled, or nearly so, with a ditch and bank, and the other without any such adjuncts. From seven of these round barrows ten skulls and other relics were obtained, five of which have a mean cephalic index of 85, the other five averaging 72; whereas Dr. Thurniam found the round barrow skulls of the south of England to average 81, and the long barrow skulls to average 69, so that the long barrows in the main contained long skulls, and the round barrows round skulls; while in Yorkshire both forms of barrows give both forms of skulls indifferently, the long-skulled men being, unlike those of the south, the tallest. Both kinds of men seem to have lived together amicably in Yorkshire, and in a low state of civilization, although possessing a large cerebral development.

TABLE OF SKULLS AND ASSOCIATED RELICS.

Where Found.	Associated Relics.	LONG SKULLS.			ROUND SKULLS.		
		Cephalic Index.	Length of Femur.	Calculated Stature.	Cephalic Index.	Length of Femur.	Calculated Stature.
			Inches.	Inches.		Inches.	Inches.
Garton Slack "C 40" {	Flint flakes and food vase.	72	19.5	72.3	...	...	...
	Food vase.	...	...	...	85	17.0	63.0
Do. "C 63" {	Flint knife and drinking cup.	73	19.0	70.3	...	...	...
(above these interments were human bones broken, as if sacrificed).	Flints, drinking cup and bone pin.	...	...	...	94	17.5	64.7
Waysham "98" ... {	Antler and vase.	71	18.0	66.5	...	...	...
Calais Wold "100" ...	Bone tool.	...	...	...	88	19.0	70.3
Garroby St. "104" {	Flint knife.	75	18.0	66.6	...	...	...
	Vase.	...	...	...	80	16.0	59.3
Aldoborough {	Antler and bones.	70	19.2	71.3	...	...	...
Birdsall Brow "65" ...	Flints.	...	...	...	79	18.2	67.7
Average		72.2	18.7	69.4	85.2	17.5	65.0

After some remarks by Dr. CARTER BLAKE and Mr. LEWIS, the following paper was read :—

ON CERTAIN DIFFICULTIES IN ANCIENT THEOLOGIES AND MODERN SCIENCE.

By T. INMAN, M.D., V.P.L.A.S.

IT has been facetiously remarked that a man who has recently had a leg amputated finds when he begins once again to enter the world that there are more men with only one lower limb than he had beforetime had a notion of. In like manner, it is not until some author has tried to sound the depths of his own mind, and cast a look upwards to the height which is above him, that he begins to recognise the fact that many others have gone through the same process.

When the modern thinker has discovered a chasm between himself and the goal which he seeks to attain, and when he finds that others have been baulked at the same locality, he naturally seeks about him in the hope of learning that some one has tried to bridge over the gulf, and of being able to pick up some hints as to the best method of passing the barrier. There is no reasonable doubt that the chasm of which we here speak was recognised by the Hindoos from a very early period, and a modern cannot fail to be struck with the profundity of thought which lies at the bottom of the theology of the southern Aryans. They, like every one else who observes what takes place in the world which he can see and notice, imagined that there was a beginning of all things. By a stretch of imagination they conceived a period when there was no solid matter, and a second in which matter and life existed. Our own modern philosophers can do no more. They see in play forces which, by chemical agency, produce the volcano and the earthquake, a series of changes which had a starting point, and which will end in repose—a rest produced by every change being effected that chemistry can bring about. The philosopher feels as sure that certain volcanoes will become extinct as that a spendthrift will come in time to the end of his money.

When the modern has by dint of analysis reduced the world to its elements and their atoms, he has merely approached nearer to the chasm than the Aryan did, who knew little of what we call chemistry. The Hindoo could make fire without understanding what flame is, and he could weld iron without caring why. He knew that there was earth, and air, and water, never caring whether these were simple or compound ; and he knew the sun and moon without ever examining them with a telescope. But the ancient could not tell, nor can the modern, how air and earth, sun and moon, water and clouds, came into existence.

It is possible that if the inquirer was observant, he might surmise that clouds came from water sucked up from seas, rivers, marshes, and the like. But then came the question, Whence came

the water into the ocean? The answer would be, From the clouds! This would eventuate in the thought, Did clouds precede oceans, or did terrestrial water precede that suspended in the sky? Whence came the first, or the two together? In vain such a man chafes in his spirit; he is still on the brink of that gulf which divides the material from the immaterial. This chasm still exists, and we shall not be occupying our time unprofitably if we endeavour to analyze the methods by which man has attempted to bridge it.

The ancient Hindoo, when contemplating the phenomena of nature, became convinced that there existed in the world around him the evidence of design. There was order, too, and something like law. Men and women were planted like seeds, increased in growth, blossomed, gave fruit, withered, and died. No one had ever seen the birth of an old man, or seen an elephant of full growth become a baby; nor was any tree known which became smaller until it was a seed. The idea of design became necessarily associated with a designer, and with the last came the belief that the designer was an active intelligence.

The argument ran thus: the Ganges and the Indus, when in flood, bring down from the mountains vast quantities of mud, which is left upon the ground when the waters recede. In that deposit there is no order beyond that which is produced by gravitation. The big stones do not eat the little ones, nor do the particles of mud form themselves into elephants and adjutants. The water acts according to law, and one may see design in the power which ordains the wearing away of mountains for the benefit of the plains; but it was not either the cloud or the river which had the origination of the design. Gradually, but surely, from this train of thought arose the belief that the being, whatever else that essence might have, possessed supreme intelligence. From an attribute it was an easy transition to go to a name, and the hypothetical Creator of the universe became Brahman, Brahma, or Brahm—a cognomen equivalent to our God, whom we regard as “goodness.” At a subsequent period there rose up a sect of Indians who, although they held almost identical views with their predecessors, called the Almighty Buddha, *i.e.*, “knowledge.” The idea which is apparent in the cognomens Brahma and Buddha is to be found in the Hebrew scriptures as well as in other western writings still extant.

For example, we find in the book of Proverbs, and conspicuously in the eighth chapter, that “wisdom” (*ghachma*) was present with Jehovah when the world was created. But the Jewish conception was not a pure and simple one like that of the Hindoo. The Hebrew first learned to believe in a deity who was at one time called Elohim; at another, Jahveh or Jehovah; at another, Adonai; at another, Melech or Molech. It was entirely a secondary or subsequent idea which associated this divinity with absolute abstract intelligence. In our opinion, the Hebrew never reached the depth of thought which was shown by the Hindoo, and we shall see in the sequel how completely the comparatively superficial thought of the

Jew enabled him, in his own estimation, to build the bridge which men seek for.

With every desire to follow a crowd, and to regard the Egyptians as men whose hierarchy dived profoundly into the sea of thought, I must express my belief that the dwellers by the Nile had not the same intelligence as the southern Aryans. There was in Egypt a vast pantheon of deities, but amongst them all there was not one who was regarded as pure, unpersonified wisdom. The nearest approach to the conception of Brahma or Buddha is "Neph," who, under the name Cnoubis or Noub, was probably reproduced by the Greeks under the name of *Nous*, or "mind." That this deity was not equivalent to abstract intelligence we conclude, because he was typified with a ram's head and an asp above it—two symbols which would serve to identify him with Siva rather than with Brahma.

Without attempting to discuss the value of the Chaldæan oracles of Zoroaster, the Orphic hymns, and other fragments collected by Cory, I will, by a few quotations, show that there was in the Greek language an idea analogous to that which existed in Hindostan; *e.g.*, "Hence this stable God is called by the gods silent, and is said to consent with mind, and to be known by soul (*ψυχῶν*) through mind (*νοῦς*) alone." "Such is the mind which is there energizing before energy." "The mind which conducts the empyrean world." "The framer of the fiery world is the mind of mind."

Again, in the Orphic hymns we have "Metis (counsel), bearing the seed of the gods;" "Metis, the first father." And once again, "The causes of all things are two, intellect (*νοῦς*) and necessity." From these and sundry other passages we may conclude that in all ages deeply thinking minds have recognised a Creator, whose most important attribute is boundless knowledge. Upon this point all intelligent persons can most probably agree. There is, then, a general conception of the land beyond our metaphorical chasm. Now, then, for the bridge which connects that distant shore with matter. How did an immaterial force or essence produce matter?

It would weary the most patient Anthropologist, were I merely to catalogue the attempts to answer the question. I shall only advert to a few. One author, probably the most deep thinker whose works are extant, saw the difficulty most distinctly, and attempted to bridge over the gulf by asserting that there was not a gulf at all. Bishop Berkeley's line of argument, as I understand it, is most ingenious, and may be summed up thus: man cannot comprehend how it is that the supreme intellect framed matter out of nothing. The solution is simply this, matter has no existence. We know, with such intelligence as we possess, that in dreams, and during insanity, man sees sights and hears sounds which are unreal. Under similar circumstances, he examines sun, moon, stars, the ocean, the globe itself; but everything has for him only an imaginary existence. The Brahma who enables us to dream has power to make us believe that all unsubstantialities are substantial.

This bridge will scarcely be used, even by a metaphysician.

The next thinker who proposed to cross the chasm asserted that there never was a time when matter did not exist; that atoms are wholly indestructible, and as man cannot annihilate a particle of them, so no power could have called them into existence from nothing.

This conception, like Berkeley's, is a bold one; but it will not bear examination. Supposing, for the sake of argument, that we grant the proposition, then it follows, as all matter remains at rest until it is put in motion, that matter in motion either is not matter at all, or that there is a Brahma outside or within its atoms which gives them movement.

The answer to the last argument is, that the moving power has been coeternal with the atoms. This only removes the difficulty, for science tells us that all atoms, from the most minute to the most bulky, will in the end fall into a state of repose as soon as the forces which oppose their movement equal that which put them in motion. Constant motion requires constantly acting force. The human mind has often wearied itself in searching for a solution of the question, What is the moving power in the universe? and, conscious of its inability to solve the difficulty, has buried itself in a cloud of words and fancies. The Hindoo theology is full of quaint notions—how a wish became a reality, and how the new creation eventuated in everything which we can see and feel; in a sort of despair something was contrived that sprang from something else, and so on; but the first thing was never reached.

The Hebrews simply ignored the difficulty, if they ever were conscious of it, and propounded as a fact that a being called Elohim first made the heaven and the earth, and, having done so, proceeded to make a variety of other matters. A word, or rather a series of words, did everything. The coarseness of this idea is evident, when we consider what is required before a word is spoken, and how that which has no existence can hear a voice.

We have, then, I think we may safely affirm, no better way of bridging over the gulf between the material creation and the Brahma now than had the old thinkers of Hindostan. By common consent, philosophers of the present day have given up the attempt to frame an idea how the *logos* (word, mind, wisdom, or counsel), made the world, or whether such a being actually exists. Each one has his own opinion, and the deeper he thinks the more reverent he generally becomes.

But we still take interest in the question of the origin of life. We tacitly allow that Brahma and matter exist, and then endeavour to know more of both by patient inquiry. We dig into the earth and find a certain crystalline or igneous rock, in which no traces of life can be discovered; above that lie other rocks, wherein can be found the remains of creatures who existed myriads of years ago. They do not seem to us to be very complex, either in their form or in the arrangement of their organs, and we speak of them as if they

were low in the scale of creation. The way in which philosophers talk of such creatures gives to the thoughtful mind the idea that some power has recently come into existence that can, like an apprentice to a sculptor, only work rudely at first. Sometimes this power is spoken of, as if it had been newly-born with one or two more atoms for a parent. This and that finding themselves in contact made quite unconsciously to themselves t'other thing, which was different from both, inasmuch as it was alive and they were dead. Well, putting on one side for the present a consideration how life originally came, the philosophers continued to question the rocks, and discovered a number of forms in the more recent ones which seemed to be far in advance, as regards complexity of arrangement, of those creatures found in more ancient deposits. Hence it has been inferred living beings were first simple, then compound, and then wondrously complicated. But an extension of inquiry shows that the massive elephant and the tiny tomtit all spring equally from a few minute cells, not much unlike minute soap bubbles, and the inference is plain, everything living came from one or at most two cells. But these cells must have life, or they will not grow, and the question is, What determined the formation of an organic cell out of inorganic material ?

To my understanding, there is not so vast a space between the minutest monad and the most huge leviathan as there is between the first organism and dead matter. One may concede for the sake of argument that a whale was once an elephant, and a grampus a fat pig ; but we still require to know how so many atoms of carbon, so many of hydrogen, oxygen, and the like, suddenly started into life as a zoophyte, reptile, bird, or mammal. The chasm between the organic and the inorganic world is as profound as that between the immaterial and the material.

At one time, persons attempted to bridge over the difficulty in the same way as the Hebrew theologians explained the world—Elohim made everything in the first place, and then one set of organisms made another set, and so on for everlasting. Oh, nonsense ! said some others ; Brahma made only a tiny monad, and that made everything, and as fresh things were produced the old types still remained. Progression was simultaneous with persistence ; but it is clear that if Brahma was required to make the monad and the world, it was quite as easy to make a cormorant as a quagmire, a negro as a white man.

In the presence of problems such as those to which I refer, it becomes a question whether, and how far, we ought to attempt to carry a consideration of them. I must say that I should like to see a discussion upon the subject of life itself. It has long been the fashion to assert that life, as such, has not any real existence ; that to talk of vital force is as absurd as to say that the fingers on a dial plate move by watch or clock force. Such an assertion resembles in its way that of Berkeley, that there was no matter. The difference between organic and inorganic matter is simply that one has life or

a power of living, as contradistinguished from having to obey certain laws of chemistry.

When we begin to investigate this part of our subject, we find once more that we are simply following in the wake of men who have preceded us. The Hindoos who crystallized their idea of the Supreme in the cognomen Brahma, also worked out, as far as they could, the problem of life. Amongst them, some regarded life as an emanation from the Invisible One, which was for a time clothed in flesh, and then returned again to the deity. Others considered life as a power, which was as indestructible as matter. When one living thing, therefore, perished, the life immediately went into something else. A consideration of the laws of life is essentially necessary for every one who enters upon the subject of what is called religion, for it is clear that if life depends upon our organism, and that a certain arrangement of matter calls it into existence, it will depart when the arrangement of matter is no longer existent, just as induced electricity departs with the instrument which excited it. If, on the other hand, life is a force under which the matter is arranged in a definite fashion, we may entertain the Hindoo idea that it is capable of a separate existence.

As I have at considerable length, in my book entitled "Foundation for a New Theory and Practice of Medicine," given my own opinions about life or vital force, I shall not enter farther into the matter now, and will content myself with earnestly recommending to the London Anthropological Society a consideration of the questions, Is there such a thing as life? If so, Whence comes it? Can any one impart it at will? and if not, Why not? I believe the subject has never yet been discussed by Anthropologists; but in my opinion it would form a most interesting matter for attention, inquiry, and debate.

The Rev. WYATT EDGELL, Mr. JEREMIAH, and Mr. LEWIS took part in the discussion upon this paper.

The thanks of the meeting were voted to the authors.

SECOND ANNIVERSARY MEETING.

Held at 1, Adam Street, Adelphi, London, on Friday, 8th January, 1875.

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The HONORARY SECRETARY read the following

REPORT OF COUNCIL.

It is with great pleasure that the President and Council of the London Anthropological Society meet the Fellows for the purpose of celebrating the second anniversary of the society and of reporting upon its progress.

This has been steady, but much slower than the Council feels that it ought to be. Since the last annual meeting, twelve meetings have been held, the attendances at which have been larger than last year, and at which twenty-six papers have been read by twenty-one authors. The variety and excellence of these communications has in no way fallen below the standard of those read during the first year of the Society, and it is significant, as showing that public interest in the Society is increasing, that more of these communications have come from strangers, and that many such strangers have become Fellows.

This, however, leads the Council to a subject which is not altogether so satisfactory. The number of Fellows on the register last year was 85. During the year there have been added 15, and 8 have resigned, leaving a nominal total of 92; but of this nominal total, 6 have omitted to pay their subscriptions for 1873, and 19 have omitted to pay their subscriptions for 1874. The consequence of the failure of these gentlemen to fulfil a trifling obligation which they had voluntarily undertaken is, that although two numbers of "*Anthropologia*" have been published and sent to the Fellows during the year, the second has only been enabled to be published by the liberality of the President and of other gentlemen whose donations are stated in the balance sheet submitted herewith. The Council feels that this ought not to be the case, and that if the Fellows and the public are really interested in the maintenance of free discussion of anthropological subjects, they ought to be ready to pay for it. If, on the other hand, no such interest is felt, then the Society has no *raison d'être*.

As, however, the appeal and suggestions contained in the first report have but just been published and issued to the Fellows, the Council trusts that this state of things will no longer be allowed to exist, and that next year will bring the Society such an income as will enable it to print and pay for—for otherwise it will not print—four numbers instead of two of "*Anthropologia*."

In conclusion, the Council desires to record its thanks to all who have helped the Society during the year, whether by donations in books or money, by the contribution of papers, or otherwise.

The report having been unanimously adopted, the TREASURER read the following

STATEMENT OF ACCOUNTS, 1874.

	£	s.	d.		£	s.	d.	
Cash in hand, 1st January, 1874			6	14	3			
Subscriptions received for 1873	7	0	0					
Ditto 1874	74	0	0					
Ditto 1875	1	0	0					
			82	0	0			
Donations—								
President	29	13	8		Cost of "Anthropologia" No. 2, and general printing	41	9	
Captain Burton	11	0	6		Cost of do. No. 3 do. do.	58	13	
C. S. Wake, Esq.	5	5	0		No. 3, plates	10	10	
C. H. E. Carmichael, Esq.	2	2	0		Stationery	1	7	
G. Harris, Esq.	2	2	6		Hire of rooms for meetings	16	16	
B. Quaritch, Esq.	2	2	0		Assistance to Secretary and Treasurer and gratuities	3	14	
Dr. Inman	1	0	0		Advertisements	8	2	
Sundry small donations	0	13	0		Postages (including postage of two numbers of "Anthropologia")	8	3	
			53	18	8	Balance in hand	59	10
Sale of publications		8	7	4				
Balance unpaid of "Anthropologia," No. 3		57	6	7				
	£208	6	10			£208	6	10
Memorandum:—					Memorandum:—			
Liabilities other than above stated	£5	0	0		Subscriptions unpaid, 1873	£6	0	0
					Ditto 1874	19	0	0

Examined and found correct, { J. GOULD AVERY.
{ R. M. REW.

The accounts having being unanimously adopted, the PRESIDENT delivered an address, of which the following is a condensed report:—
Gentlemen,—

Rabelais, in his Pantagruelian prognostication "for the year that is to come, now and aye," foretells that there will be seven-and-twenty irregular verbs made during the next year, if Priscian, *i.e.*, grammar in general, does not hold them in. The present century is likewise very prolific in the coining of scientific terms. The ethnologists have lately manufactured the term "*priscan*" (*priscan archaeology*). The word *priscan* is certainly not found in any dictionary that I have examined, and I am not aware to whom we are indebted for its origination. Is it derived from *Priscus Attius*, the Roman painter, who lived under the Flavian emperors? *Priscus* of *Nicomedia*, the architect and military engineer? *Priscus*, the Byzantine historian, who wrote an account of his embassy to *Attila*? *Priscus Helvidius*, who commemorated in poetry the birthdays of *Brutus* and *Cassius*? *Priscus Julius*, the centurion, who disgracefully deserted his post? *Priscus Lutorius*, who composed a poem on the death of *Germanicus*? *Priscus Tarquiti*, who was expelled from the senate of Rome as an informer? or from some other of

the very many persons of this name in ancient times? Another solution of the difficulty may, however, be possible. "Priscan" may be a corruption of the proper name of "Priscian," the popular mediæval writer on Latin grammar.

"Priscian a little scratched; 'twill do."

—*Love's Labour Lost.*

Perhaps, after all, the word *priscan* may have been formed from the Latin *priscus*, old, ancient; and *priscan* archæology may denote a sort of paulo-ante-archæology: it may indeed refer to a time a little before the beginning of all things. Such a term as *priscan* archæology may, perhaps, be warranted by the Spaniard Ribeira's *feomente feo*, and by a Latin author who uses the term *stultior stultitid*.

You will notice that we have reduced the number of our sessional meetings. This may by some be considered as a sign of weakness. The fact is, instead of a paucity, we have a plethora of papers. It is, gentlemen, really a question of expense. What we read we are expected to print. Some of the so-called scientific societies want papers; we want money. The same thing often rules in daily life. The younger son often wants cash; the elder is frequently deficient in brains; and what Solon says is still more to the purpose:—

Πολλοι γαρ πλουτουσι κακοι, αγαθοι δε πεπονται.

Abiogenesis is still occupying the attention of physiologists. In a paper published in Pflüger's *Archiv* (band viii., p. 551), Huijzinga opposes the statements of Samuelson and Burdon Sanderson, and adheres to his own previously expressed views, which are in favour of the origin of organisms without the co-operation of pre-existing organisms; in other words, in favour of spontaneous generation. He objects to the employment which they made of hermetically-sealed tubes containing but a small amount of air, a condition unfavourable for the development of life. He himself used diaphragms, and corks, if they may be so called, of porous earthenware. He exposed the fluids which he experimented with to a temperature of 212° F., or a little above, which he believes killed all organisms and their germs. Notwithstanding this, he found bacteria in a mixture of potassium nitrate, magnesium sulphate, calcium phosphate, starch, peptones, and grape sugar. When such a mixture was exposed to a temperature between 220° and 230° F., however, no bacteria appeared.

At the meeting of the British Association, held at Belfast, Professor Tyndall read an address, in which, after reviewing the evidence, ancient and modern, on the atomic theory, he admitted his ignorance on the subject, and claimed jurisdiction over all theories of nature. That so profound and satisfactory a conclusion should have been arrived at in an address of only a few hours duration is certainly worthy of note.

At the same meeting, Professor Huxley read a paper "On the Hypothesis that Animals are Automata, and its History." He holds that most of the movements and affections of animals are conscious in the same way as those of men, though in a less degree, but that they have no independent consciousness of their mental states as such; at the same time, he defends Descartes from the paradoxical extreme to which his view was carried, by insisting on the impossibility of attaining to anything more than a strong working probability on the other side. The chief objection which would strike an ordinary reader is that the writer gives several definitions of "automata" and of "consciousness" which are mutually contradictory. Did Professor Huxley read Descartes and Willis in the original? If he did read them, did he understand what he read?

Our colleague, Dr. Beddoe, has communicated to the British Naturalists' Society a paper "On Ethnic Migrations," which forms the opening article in the first part of the society's proceedings, recently published as the commencement of a new series.

At the Congress of Prehistoric Anthropology, held at Stockholm in August last, M. Aspelin read a paper entitled "L'Age de la Pierre au Nord Finno-Ougrien." M. Aspelin says:—"In order to study the Age of Stone in Finland, it is necessary to distinguish three regions. The Finland region comprehends Finland and Russian Carelia to the west of Lake Briga, the Baltic-Lithuanian region, and the Eastern Finnish region. The utensils found in these regions differ both in their form and in the stone of which they have been fashioned. The Finland region is especially remarkable by the abundance and variety of the objects found (the flints excepted), and by the diversity of their forms. The region may be divided into two; that of Finland, properly so called, is characterized by a great abundance of chisels, of square-edged hatchets, and of implements in the form of a club, with a hole to attach the handle. From the similarity of the instruments found with those of bronze, discovered in the Carelian region of the Age of Stone, it would seem probable that it was peopled by a tribe which, compelled to abandon a territory producing copper, had been forced, by the absence of this metal, to descend to a lower degree of civilization. Objects of slate are sometimes found in Russian Carelia, but they are especially characteristic of the north of Finland, as far as Lapland. In the limits of the Finland region, neither the bent-back Norwegian knife of slate, nor any sepulture of the Age of Stone are found; but, on the other hand, utensils of stone are met with in several places. The little variety of materials (which include *diorite*, *porphyry*, and *syenite*) of the Baltic-Lithuanian region may explain the slight diversity in the form of the instruments. They consist almost wholly of square-edged hatchets and perforated clubs, but these are found down to the sepultures of the age of iron. In the Eastern Finnish region the objects made of flint are by far the most common. They consist especially of arrow heads of different forms and sizes, of cores and of flakes (*des nuclei et des éclats*). There

are likewise lance heads, half-moon scrapers, and small hatchets. The characteristic of these is the lenticular form of their transverse section, like those of Western Europe. As in the preceding region, perforated hammer-hatchets play here also a considerable rôle, but what here distinguishes them is the curve of their edge." M. Aspelin is of opinion that the distribution of forms in these different regions seems to indicate different origins, but that the analogies are all with Scandinavia; and he thinks that it is to that country that we must look for the origin of the tribes that have peopled Finland, and not to the North of Asia and Western Siberia, which could not have had an Age of Stone.

According to the *Academy* of March 7th, 1874, an important archaeological discovery has been recently made in Norway. A tumulus a few miles to the north of Frederikstadt has been explored, and, imbedded in a sort of stratum of firm clay at its base, has been found the hull of a vessel, made completely of oak, and evidently of great age. Both ends taper, so that it is difficult to tell the bow from the stern; the vessel, moreover, is rather "squat" and low in the water. The length of the keel is about 44 feet; breadth of beam about 13 feet. Various circumstances combine to prove that it must have been a war vessel for coast use; it was propelled by oars and sails, and there are traces of elaborate carving about the sides. In accordance with an ancient practice in Sweden and Norway, allusion to which is made in some of the sagas, the vessel was doubtless brought hither to cover the remains of its captain, fragments of whose dress, horse accoutrements, and harness have been discovered. It is thought that the vessel dates from the time of the old Vikings, and the Society of Antiquaries at Christiania, with a due regard for its historical and archæological value, has caused the entire lot to be conveyed to Christiania, with a view to its being set up within the precincts of the University. A detailed description of this relic will be found in an English translation of a Norwegian pamphlet, published at Christiania under the title "The Ancient Vessel Found in the Parish of Tune, Norway."

In the last number of the *Revue d'Anthropologie*, Dr. Topinard discusses the value of the facial angle. He shows that his method of measurement was originally suggested for the use of artists, some of the finest masters having failed in portraying negro physiognomy. But whilst Camper's goniometry may be useful enough for its original purpose, it is of little or no use to the Anthropologist in the diagnosis of race characters, or in comparing the development of the face with that of the brain.

As a late writer remarks, although craniologists are constantly engaged in taking measurements of the skull in every possible direction externally, they have rarely an opportunity of studying the interior of the cranium. But, as the value of the cranium over other parts of the skeleton depends mainly upon the fact that it encloses the brain, it is obvious that the cavity of the skull is more important than its exterior. Yet the cranial cavity cannot well be studied

without sawing the skull asunder, and thus spoiling it. Hence great credit is due to Dr. Broca for devising an ingenious means of studying the interior without the necessity of opening the cranium. The instruments for effecting this object are described and figured in the last number of the *Bulletins de la Société d'Anthropologie de Paris*.*

At a late meeting of the Société d'Anthropologie de Paris, Dr. Hamy gave forth some ideas upon the permanence of the anatomical characters of the human race. He thinks a conscientious, minute study of human fossil bones properly chosen shows that the cranium, as well as the other parts of the skeleton, leave no doubt as to the reality of this permanence. As regards the prehistoric races, he thinks that the specimens we now possess enable us to affirm that their anatomical details represent many different types.

In the anthropological section of the French Association of Science, recently sitting at Lille, Dr. Gustave Lagneau read a paper "On the Ethnogeny of the Population of the North of France." He concludes that after, and perhaps before the polished stone age, there were two principal races incessantly intermixing, and giving rise to the existing population of the district. One, a Celtic race, with a more or less rounded sub-brachycephalic head, short face, brown hair, and moderate stature, which anciently occupied, chiefly or exclusively, the northern region, as it now occupies, chiefly and almost exclusively, the centre and north-west. The other race, true North German, with a long head, high face, light hair, blue eyes, remarkably white skin, and large bones, he thinks represented, at least in the Neolithic epoch, and to have constituted the Gauls (*Gaëls*), Belgians, Cambrians, Germans, Saxons, and Franks, who successively immigrated into the northern region, subduing or driving back the anterior Celtic race. In the discussion on this paper, M. de Quatrefages observed that women preserve ancient types more than men, and in Antwerp he had come across some short brachycephalic, prognathous, brown-haired women, of the type of those found in the grottoes of Furfooz. Dr. Carter Blake, who visited Furfooz with myself in 1866, was of opinion that the female type of the Furfooz caves showed much analogy to the Mongolic types, but guarded himself against the assumption that the Furfooz men represented what it was then the fashion to call a "Turanian" type.

The *Naturforscher* of March 7th mentions the exhumation, by M. Rivière, of a human skeleton of the diluvial age, from the caverns of Baoussé-Roussé, at Ventimiglia, near Mentone. The cavern is from 27 to 28 metres above the sea level, and 12 metres deep. The ground was covered by a reddish conglomerate to a depth of rather more than a metre, beneath which were large blocks of stone, apparently heaped up above the entrance. Among these blocks were the first traces of human habitation. Scattered about were bones of the genera *Cervus* and *Capra*, with shells of *Patella* and *Mytilus*, and a few stone implements. At a depth of 3·75 metres beneath this

* Conf. *Athenæum*, 7th March, 1872.

upper habitation was found, in February, 1873, a second one, with numerous remains of animals, which placed its age beyond doubt, and in the midst of them a human skeleton. The remains included bones of *Ursus spelæus*, *Bos primigenius*, the horse, hyena, marmot, and several species of stag (but no reindeer), many remains of birds and of land and marine mollusca. The implements belong to the earliest stone age, but are in no instance polished; some of the smaller ones are made of quartzite or felsite. The human skeleton is not in so good a state of preservation as the one previously discovered by M. Rivière near Mentone, in 1872; it lay stretched on its back, and its height must have been 2 or 2·05 metres (*i.e.*, a little over 6½ feet); the bones were all coloured red by iron, and the skeleton was covered by a layer of earth containing iron, which M. Rivière suggests had been brought for the purpose of burial. The skeleton appears to have belonged to the earlier stone age, about the close of the epoch of the cave bear and *Rhinoceros tichorhinus*.

In constructing a new harbour at Kiel, a skull has been found at some depth in a deposit of peat. This relic has been carefully studied by Dr. Pansch, who believes that, although there are no definite geological grounds for assigning to it a high antiquity, it may, nevertheless, be referable to prehistoric times. It differs in many respects from the modern Schleswig-Holstein type.* It has been a question whether peat has an influence in preserving or in destroying the human body. In 1866, Dr. James Hunt read a paper before the Anthropological Society, in which he endeavoured to show that there were conditions in which peat was not preservative. Mr. Tate stated that in Ireland there was generally clay underlying the peat, and then brushwood, and on that the remains of the *Cervus megaceros*, the old Irish deer, were found. The bones thus found were imbedded in peat that was saturated with moisture, and with any fluid matter that might be destructive of animals' remains. Mr. Tate stated that a wet mass of ordinary peat was well known to be preservative. Thus, in the Shetland Islands, the body of a person who had been buried in peat for sixty years had been dug up and found to be in a good state of preservation, the peat in that case being very moist. Peat-bogs were generally preservative. The property of peat to preserve human remains may depend upon the variety of peat in which such remains are found. The common peat is a composition of the branches, twigs, leaves, roots of trees, &c.; and it may have the property in question from containing tannin. There is, however, another sort of peat found in Scotland, Germany, and Holland, called "Scottish or German peat," a substance of a yellowish-brown or black colour, which consists of clay mixed with calcareous earth and pyrites; and it is possible that this variety might not have a preservative property.

An interesting discovery has been made near the village of Sorde, in the Pyrenees. Here the nummulitic beds are thrown up in such

* See *Athenæum*, 7th March, 1874.

a manner as to form an escarpment, and here MM. L. Lartet and Chaplain-Duparc found, concealed by a slope of rubbish, a shallow cave or sheltered place, 9 metres in length and 2 metres deep, which furnished human remains at two different levels. On the calcined and broken limestone forming the floor of a grotto lay a human skeleton, associated with worked flints, and with about fifty canine teeth of bear and lion, mostly pierced for the purpose of being suspended or strung upon a cord. About twenty of these teeth were ornamented with engraved lines, and some of them very delicately sculptured with representations of fish and seals. These remains are covered by a black layer, from 24 to 40 inches thick, composed of ashes, pebbles, broken bones, including those of the reindeer, worked flints, bone implements, barbed arrows of types common in the stations of the close of the reindeer period in Périgord. Above this was a thin layer of snail shells, indicating the temporary abandonment of the shelter by the reindeer hunters, followed by a brown bed 24 to 30 inches thick, containing bones and flints like those of the black layer. Upon this lay about 30 human skeletons, chiefly collected towards the northern corner of the grotto, associated with bone pins, amulets, and worked flints, the last being of particularly perfect form. Two of these bear traces of polishing, and, singularly enough, one, a very fine one, shaped like a triangular poignard, would seem to have been polished before receiving the final chipping, which has given it a most elegant appearance. The skeletons resemble those of Cro-Magnon in Périgord, and the discovery offers traces of a very considerable advance in culture made by the same race of men. In Périgord these men had first arrows with triangular bone heads; then barbed bone arrow heads; and the owners of these produced artistic representations of animals on bones and other objects (as at La Madeleine and Laugerie). This latter phase is represented at Sorde by the remains found at the lowest level, while the upper stratum in the same shelter shows the same people possessing flint instruments of such beautiful workmanship as to approach those of the polished stone age.

In the anthropological section of the French Association of Science, lately held at Lille, M. de Mortillet argued that dolmens were not characteristic of any special migratory race. There were, for example, isolated groups of dolmens in the Crimea and in Palestine which could not be explained by a theory of migrating builders. Although dolmens had certain characters in common, their details varied in different countries, and they were the work of sedentary populations sufficiently distinct to have different habits. Variations were often found in districts close to each other; thus, in Bretagne, the dolmens are chambers or caves with long entrances (*coulloirs*), while in the environs of Paris they are long and broad covered ways preceded by short vestibules; and in Lozère, l'Aveyron, Le Gard and l'Ardèche they are simply rectangular kists of large dimensions. M. Mortillet thinks the dolmen was only a derivative from the sepulchral cave, and constructed artificially to meet the

increasing demand for burial places. Further, an examination of the remains in caves and in dolmens of the same epoch showed an identity of funeral customs. Le Gard exhibited characteristic transitions between caves and dolmens. M. Aurès had shown at Aubussargues a natural sepulchral cavern closed after the manner of the dolmens of the district, and M. Cazalis de Fondouce had described and figured the hybrid sepulchres of Cordes and Castillet, in the commune of Fontvielle, which are half natural cave and half dolmen.

At the meeting of the anthropological section of the Association Française pour l'Avancement des Sciences, on the 25th August, 1873, which was held at Solutré, a minute description of the human remains and those of horses which were found there was given by M. Arcelin, and the recent work of M. Toussaint discussed, in which the domesticity of the Solutré horse was suggested; and the idea was thrown out that in some way it formed a transitional link between Hipparion and modern horses. The metacarpal and metatarsal bones in some of the Solutré horses were not anchylosed. Whether the Solutré horse was domestic or not was left an open question, but of the fact that it served as food for man there can be no doubt.

Dr. Paul Broca, in a paper entitled "La Race Celtique, Ancienne et Moderne," in the *Revue d'Anthropologie*, points out the ethnic differences between the Celts and the Belgæ of Julius Cæsar. Dr. Broca says:—"Whilst the true Celtic skull is brachycephalic, that of the Belgic or Kymric race is dolichocephalic. The Auvergnats appear to have preserved in great purity the old Celtic type, whilst the Parisians are supposed to share equally in Celtic and in Kymric blood. Between these two groups come the Bas-Bretons, who exhibit the physical characters of the Celts in a marked degree, and the Bretons-Gallots, in whom the Celtic element asserts itself still more strongly." I am disposed to doubt the propriety of applying the term Kymric to the Belgæ. The Belgæ, no doubt, had some Kymric blood, but they were probably more allied to the Gothic or Teutonic type than to the Kymric. Again, the terms Kymric and Celtic would seem to be nearly synonymous; at all events, I take it that the Kymri were a people of Celtic origin.

M. Alex. Bertrand, director of the Museum of Saint-Germain, in a letter addressed to the editor of the *Revue d'Anthropologie*, discusses at length the origin of the Celts and Gauls from the point of view offered by prehistoric archæology. He says:—"Added to the Iberian or Ligurian element, we may trace three non-historic ethnic groups which have contributed to the composition of the Gaulish nationality; first, the troglodytes, who inhabited the caverns and rock shelters so abundant in certain parts of France; secondly, the dolmen builders, who erected megalithic structures during the later stone period; thirdly, the iron-using people, who raised tumuli in Eastern France." It would appear, from a map accompanying M. Bertrand's communication, that a sharp line may be drawn dividing France into a western and an eastern zone, the former being characterized by the presence of dolmens, which contain objects, commonly

of stone, rarely of bronze, and never of iron; whilst the latter, or eastern zone, is equally characterized by tumuli, containing objects, commonly of iron, rarely of bronze, and never of stone.

Dr. E. Paulus, of Stuttgart, has published a report of his recent examination of several so-called Alemannic or Frankish graves, near Tuttlingen, in Würtemberg. The skeletons, which had been tolerably well preserved in the silicious deposits of the banks of the Danube, were in many cases found without remains of clothing or industrial objects of any kind. Near some, feminine ornaments were found, as bronze ear-rings with pendants, and necklaces, composed of coloured glass and clay beads. One grave, which was remarkable for being upwards of 5 feet below the superimposed deposits, while the majority were only about $1\frac{1}{2}$ or 2 feet below the surface, contained the skeleton of a largely-developed aged man, having at his right hand a long two-edged iron sword, with a broad inlaid wooden scabbard, a finely-cut iron spear head, a small iron battle axe, and a highly ornamented ivory comb. This skeleton, like the others, lay with its face turned towards the east, and seemed by the number and the perfection of the weapons, and other objects buried with it, to have been that of a person of distinction. The sword and axe, which differ from any hitherto found in Würtemberg graves, and the manner in which the bodies were laid in the ground, appear to show that they belong to the Frankish age (from the sixth to the eighth century). Some time ago numerous fragments of Roman amphoræ and other vessels, stamped with the letters C.POS.V.RV., were found in the neighbourhood of these old graves; but while the Frankish remains were, as already mentioned, embedded in the uppermost stratum of the river deposits thrown up by repeated inundations of the stream, the Roman remains lay more than 7 feet below these superimposed beds, which must thus have been accumulated with great rapidity during the period that had intervened between the Roman occupation of Germany and the times of the Alemannic or Frankish inhabitants of the Würtemberg territory.

Our vice-president, Captain Burton, writes to the *Pall Mall Gazette*, under date Trieste, February 15 :—"It may interest some of your readers to hear that an 'antediluvian cavern,' containing bones, &c., has lately been opened at Macarsca, near the southern extremity of Dalmatia. Signor Simerne Ljubich, director of the National Museum at Zagabria, is in treaty for sundry specimens, and Dr. C. Vojnovich, after publishing his "*Cenni Statistici sulla Croazia*," proposes to write, with the aid of a local antiquary, Signor Sweglevich, a memoir upon the find. These discoveries, together with the coins collected by Dr. Allacevich, will, it is hoped, illustrate the history of 'underground Dalmatia,' hitherto unexplored."

Signor Antonio Profeta-Ranfaldi, whilst making researches among the ruins of the ancient town of Erbita (near Aidone, in Sicily), which was destroyed in 800, discovered several small sepulchres, such as were used by the ancient Etruscans. A hewn

stone sarcophagus, made without cement, and another in which there was still a little lime in the inner lining, were opened, and proved to contain, according to ancient custom, lamps, amulets, arms, painted vases, and statuettes of gods or heroes. Some of the less finished vases contained the lotus, symbol of the Lotophagi, the mythical inhabitants of Sicily at a very early period. Gold rings, small knives, bronze nails, and pieces of money, and also two human crania of very small dimensions, were also found. These latter have been sent to Professor Mantegazza, to assist him in determining the different types of the inhabitants of Sicily at different epochs.

Dr. Meyer, who for the last few years has been travelling in the East Indian Archipelago, and Dr. N. Miklucho-Maclay, well known for his researches in New Guinea, have both given their attention to the ethnology of some of the islands in those regions, and they agree in establishing a close affinity between the Negritos of the Philippines and the Papuans of New Guinea, in spite of the fact that the Papuan skull is said to be dolichocephalic. According to Meyer, the Negritos form the aborigines of the islands in the Archipelago, and at the time of the landing of the Spanish had already been driven inland by an invasion of Malays. The former tribe is thus generally found in the mountains, and the latter on the coast. Maclay traced the same type of countenance among the natives of the new Hebrides, and the likeness is carried still further by a comparison of the songs and dances. He does not incline to the commonly-received opinion that there are two distinct races in New Guinea. He considers the type is everywhere Papuan, but that it comprises several sub-divisions widely differing in characteristics.

Meyer says the Negritos of the Philippines call themselves Ahetas, but were termed by the Spaniards Negritos, the negrito being a diminutive of "negro." As but few skulls of this little-known race have hitherto reached Europe, and even these may not all be well-authenticated, Meyer sought to secure some Negrito skeletons, and, after some difficulty, succeeded in so doing.

Dr. Maclay, who visited the Isle of Luzon, found that the Negrito skull is brachycephalic, measurements of twenty individuals having shown that the cephalic index varied between 87.5 and 90. On the brachycephalism of the Negritos, reference should be made to De Quatrefage's exhaustive memoirs.

The *Alta California*, a San Francisco paper, publishes some interesting details of the discoveries recently made in the ruins of ancient cities in South Arizona.

The Pueblo Viejo valley lies to the south of the Gila river, and between it and the Graham Mountains. In this valley, which is about 60 miles long and four miles in average width, is a chain of well-marked ruins of ancient cities, standing about a mile apart. In some places the walls of the houses still show above the surface, and at others the mounds, from 10 to 40 feet in height, are covered with earth and vegetation. The walls are composed of rough stone laid in mortar.

Excavations indicate that all the cities were destroyed by fire. Amongst the rubbish were found pottery, household utensils, and human bones, but no warlike implements. Several jug-shaped earthen vessels, containing ashes, small pieces of human bones, and fragments of charcoal were also found. Axes and hammers of various sizes and shapes, and made from stone which is much heavier and harder than any in the neighbourhood, have been discovered. Some of the pieces of pottery which were dug out of the ruins are of a dark grey colour, and as hard as stone. The surfaces are nicely glazed, and covered with lines and characters of colours different from that of the ground. One piece has a black surface, covered with irregular yellow lines, and surrounded with a border, also yellow, of wedge-shaped characters. In each of the cities was found a large triangular-shaped reservoir, containing from 3 to 5 acres. These are connected with one another, and with the Gila river by means of a large canal. The edges of the canal and reservoirs are laid with stone, and are of very substantial construction.

On the banks of the Gila, about 10 miles below Florence, are the ruins of a building measuring 57 by 51 feet, built of "adobe," which is now so hard that a pick cannot be driven into it. There are two walls—a building within a building—which are separated by a space of about 10 or 12 feet, and which are nearly 30 inches thick at the base. In the walls, about 9 feet from the ground, are built a row of cedar beams, which bear traces of having been consumed by fire. In one place three stories of the building are still standing. The windows are long and narrow, and have been placed without regard to external symmetry. The art of plastering seems to have been perfect in those days, as the inner wall is still smooth, and of a yellowish-white colour. Near this building are still standing rows of cedar posts, set in very accurate lines.

Examples of the same class of ruins are found all over southern Arizona, New Mexico territory, and Northern Mexico, but it is believed that no such pottery and household implements as have been found in the Arizona ruins have been discovered in Mexico. Of the people who built these cities, or at what period they existed, nothing is known.

The city of Mexico correspondent of the *Louisville Courier* journal gives an account of a recent visit to the ruins of Xochicalco. The chief ruins are situated upon a hill, which is about 300 feet above the surrounding rolling plateau. A deep and broad ditch, walled with cemented stone, extends entirely round the hill, a distance of about three miles. Above the ditch the slope presents a series of four or five high terraces, supported by slightly inclined walls, composed of large rough masses of porous volcanic stone called tepite, closely cemented with mortar. The dilapidated state of the works permitted the visitors, at some risk of tumbling backward, to ride on horseback slowly and in a zigzag course to the summit of the hill. Here, in the centre of a broad esplanade, but concealed in great measure by small trees and tangled undergrowth, lie the ruins of the most remarkable specimen of ancient American architecture yet dis-

covered north of Yucatan and Guatemala. Archæologists state that the original monument or temple was a five-storied truncated pyramid, constructed entirely of hewn stone, and measuring about 50 feet in height. Of this only the base or lower story now remains, which is rectangular in form, its lines corresponding exactly to the points of the compass, and measuring along its upper edge 64 feet from north to south and 58 feet from east to west. It consists of huge dressed granite blocks, some of them 8 feet in length, and nearly 3 feet in breadth and thickness. These are most accurately fitted without cement, and form in position an inclined wall $15\frac{1}{2}$ feet high, which presents a well-finished plinth below; then a broad surface, divided into two long panels, which extend the whole length of the wall; next a fringe, also divided into two panels; and, lastly, a prominent cornice, by which it is terminated above. The whole of the fringe, which is $3\frac{1}{2}$ feet in width, and the two broad panels are crowded with figures in bas-relief, having a projection of 4 or 5 inches; and, as they extend from one stone to another, it is thought to be probable that they were sculptured after the wall was erected. The figures consist, for the most part, of the human form, with front view of the body and face in profile, a tunic around the loins, a heavy necklace of round balls about the throat, and a profusion of curved lines drooping from the head, supposed to represent feathers. Some of the figures terminate below in a kind of feather brush or scroll; some are reclining, some standing, and others apparently walking, holding erect in the right hand a club shaped like a cricket bat. There are also well-defined rabbits, heads of nondescript animals like alligators, with drooping lines from the interior of their open mouths and the tops of their heads, hieroglyphic letters, circles enclosing a cross, &c. There is a very remarkable representation of a man sitting cross-legged, with a cap upon his head, from which projects forward the head and half the body of a snake, and over his eyes what appears to be a pair of spectacles without glasses. Upon searching the ground around the pyramid and upon the hill terraces below, there were found quantities of small fragments of ancient pottery, but none of the clay heads that abound around the pyramids of Teotihuacan, and not the smallest piece of obsidian. It is supposed that the building subserved the double purpose of a temple for worship and a mausoleum for the bodies of the chiefs of the people who erected it. The name of the place is said to translate, literally, "Home of Flowers." There seems no doubt as to the object of the ditch at the base of the hill, and the terraces into which the latter was fashioned. Some excavations in the hill form admirable places for resort for the women and children in case of attack from their enemies.

According to Dr. Conto de Magalhães, man in Brazil dates back 100,000 years. He discriminates three types amongst the Indian races. A dark race of great stature (*e.g.*, the Guaicurú of Matto Grosso), a lighter race of a medium height (the Charante in Goyaz), and another, still lighter and smaller, peculiar to the basin of the

Amazons; for example, the Mundarucú of Para. He regards the first as the primitive race, the two others as the result of a mixture with whites in prehistoric times. The mingling of the races in more recent days has "produced a mixed race, excellent for its energy, courage, sobriety, constancy, and resignation in the endurance of privation and toil." The influence of the half-bloods on the Brazilian people has been great, and is shown in the language, which, in addition to above a thousand nouns borrowed from the savages, has adopted a large number of their verbs and phrases. Dr. Magalhães considers this racial mixture beneficial for Brazil and for humanity. In the Vão de Parana no white man can live; sooner or later the marsh fevers overpower him. Here, and in other parts similarly situated, the mixed races flourish.

It would appear, from a series of letters in the *Messenger de l'Europe*, signed "A. S. Kourbsky," that the Russians play a considerable part in the labour market of the western states of America. Those in the Indian territory, though amounting to only a few hundreds, are specially in request as *vacheros*, and bear a most excellent character for steadiness and for kind treatment of the Indians, with whom they appear to sympathize, which is the more astonishing, considering their origin. M. Kourbsky says the majority of these Russians are escaped convicts, who have fled from Eastern Siberia; and though unprovided with money and weapons, have managed to reach the Arctic coast of Behring's Straits, where they have been picked up by American whalers. It is thought that such a journey could only have been achieved by men of bodily strength and energetic temperament. On arrival in their new home, they fortunately see the advantages of an honest life, and almost all seek employment as drivers of waggon caravans, in which capacity they have acquired quite a reputation. The Pacific Railroad has done much, however, to spoil their trade.*

The following is from Siegwart's *Alter des Menschengeschlechts*. The earth is inhabited by 1,381,000,000 human beings. These are divided according to race as follows:—1. Mongolians, 580,000,000; 2, Caucasians, 380,000,000; 3, Malays, 220,000,000; 4, Ethiopians, 200,000,000; 5, Redskins, 1,000,000; Total, 1,381,000,000. The rate of mortality is 33,333,333 every year; 91,954 every day; 3,730 every hour; 60 every minute; 1 every second. The average duration of life is 33 years; one-fourth part of the population dies before the seventh year; one-half before the seventeenth; only one in 10,000 reaches the hundredth; only one in 500 the sixty-fifth year. Married people live longer than unmarried ones, tall persons longer than short ones. Only sixty-five persons in 100 contract marriage. The eighth part only of the male population is fit to bear arms. One hundred years ago France was the most populous country of Europe. At that time Russia had 17,000,000 of inhabitants; Austria, 18,000,000; Germany, 15,000,000; France, 24,000,000. At the present time the population of Russia is 74,000,000; of Germany,

* Conf. *Academy*, 7th Nov., 1874.

41,000,000; of Austria and Hungary, 36,000,000; of France, 36,000,000; of Great Britain and Ireland, 32,000,000.*

During the past year the Siamese Twins have died. Dr. Hollingsworth, who made an examination of the bodies, found the Gordian knot or band which connected them to be an extension of the sternum for about four inches in length and two in breadth. The band was convex above and in front, and concave underneath. The two bodies had but one navel, which was in the centre of the band, and it was supposed that there were two umbilical cords branching from this. The connecting link was found to be the ensiform cartilage, and was as hard as bone, and did not yield in the least. It is also stated that for some time previous to their death motions were observable in the band. Dr. Hollingsworth did not think they would have survived a separation; not from any danger of separating the arteries, but from fear of producing peritonitis. No hæmorrhage would have been produced, so far as could be seen, as there were no arterial connections of any account. Dr. Beigel, whom I accompanied in 1869 on his examination of the brothers, was of opinion that they were in every respect two different beings. He thought they were different in feeling, different in opinions, and different in health, and the only thing common to them was that they had been accustomed for fifty-eight years to act as a single individual. They moved in the same direction without telling one another, exactly as a single individual would do. As to feeling, one was sometimes ill and the other not; one was hungry and the other was not so; one was sleepy and the other was not, and one had certain natural desires to satisfy which the other did not feel, which at times was troublesome and disagreeable. Their band of connection was merely an elongated cartilage from the bone of the chest, which passed from one to the other. It was solid, not hollow; was about seven inches long, and of the thickness of an arm. There was a difference in their pulse amounting at times to five or ten pulsations in a minute. There was no communication between the thorax of one and that of the other, but when one was coughing it seemed as if something were protruding into the connecting band. The two individuals could move their limbs separately with ease; and one of them played the violin, the other the flute. The separation might, he thought, be easily made without danger, but they would not allow it, and did not desire it. The opinion of Sir J. Simpson and other eminent men had been taken on the subject, but the twins did not dream of being separated. They were married and had nine children, all grown up. From a medical point of view there was little of interest in the twins; the chief point of interest consisting in ascertaining the point in the connecting band where they feel separately, and where conjointly. For a space of about half an inch in the centre of the band both felt a prick, but beyond that space each one felt separately. If they were divided they would have great difficulty in acting

* Conf. *Academy*, 4th April, 1874.

separately ; they would also have great difficulty in walking without their accustomed mutual support. If either of them were to die, there would be time to separate them without injury to the living one.

During the present year, the Rev. Dunbar Heath read a paper on the "Origin and Development of the Mental Faculty in Man," in which he argued that mind was not the "central essence of the brain," but the result of "the existence of a material film surrounding the outside surface of the brain." To this film he proposes to give the name of "psychoplasm." One ethnologist objects that there is no evidence of the existence of the supposed material film. Mr. Heath's idea seems to have been suggested after a sort of negative fashion by Magendie, who discovered in the cavity of the cranium and spine a liquid, in the midst of which is immersed the brain, spinal marrow, and the origins of all the nerves. He names it the *cephalo-spinal* or *cephalo-rachidian* fluid, because it is found in both the head and the spine. He says one of the uses of the *cephalo-spinal* fluid is to replace the brain as often as it diminishes in actual volume. After speaking of the influence which it exerts on life, he says : "Thus it appears in man as in the lower animals ; the contact of this liquid with the surface of the brain is of great consequence to the perfection of the nervous functions, and even to life." Magendie is of opinion that the *cephalo-spinal* fluid influences the functions of the nervous system, firstly, by its contact with the surface of the brain and spinal marrow ; secondly, by its chemical nature ; thirdly, by its temperature. He further says he first ascertained the quantity of *cephalo-spinal* fluid in persons endowed with reason ; secondly, in idiots (not born idiots), and thirdly, in the insane. There exists a considerable quantity of this fluid in idiots, in whom it occupies the surface of the brain, where it forms a thick layer. The insane have also a large quantity of this liquid, but it does not accumulate at the surface of the brain. Whatever the nature of this enlargement in monomania, melancholia, hallucination, &c., the ventricles are always much distended and enlarged by the fluid, of which sometimes three ounces are found in these cavities alone. Persons who retain their reason till the time of their death generally have less than an ounce of serosity in the ventricles. Thus it may be easy to distinguish the the brain of a madman and of an idiot from one that is sound. He goes on to say that he once had to examine the brain of a man of genius, who died at an advanced age, but still retaining his faculties entire ; the entire quantity of the *cephalo-spinal* liquid did not amount to two ounces, and the cavities of the brain scarcely contained a drachm. By these general results, Magendie considers it to be established that the development of the faculties of the mind is in the inverse ratio of the *cephalo-spinal* fluid, and that this is to a certain extent easily understood, since the volume of fluid cannot increase but at the expense of the cerebral mass ; and, in general, superior intellects are found connected with voluminous and well-developed brains. He also thinks that those who have a large head and high

forehead, and are disposed to be somewhat vain upon the subject, ought to feel some curiosity about the relative proportion of their *cephalo-spinal* fluid.

At a late meeting of the Société d'Anthropologie de Paris, M. Debourge read a note upon the frequency of alterations presented by the anterior portion of the left hemisphere in the numerous cases of aphemia or aphasia. M. Debourge calls attention to the fact that when the vessels are most engorged an abundant flow of blood proceeds to the left side, and consequently a more abundant nutrition. Dr. Broca referred to the anterior labours of Dr. Fleury, of Bordeaux, who had not only mentioned this peculiarity and given this explanation, but had made known in man and animals the relation which exists between the special characters of animals and the mode of subdivision of the vessels which spring from the arch of the *aorta*. On this subject I may refer to Dr. Broca's diagrams of the *aorta* in the various orders of the mammalia, and call your special attention to the views of Professor St. George Mivart in his *Manual of Anatomy*.

Mr. Joseph Boulton, in a pamphlet on Pre-Roman Civilization in England, endeavours to correct the popular notion that the inhabitants of Great Britain were savages at the time of Cæsar's invasion. Mr. Lysons had previously attempted the same thing, and with considerable success. The chief part of Mr. Boulton's argument is based on the etymology of Celtic words, of which a few examples will suffice. He traces the Greek name Cassiterides to a purely Celtic root, viz., *cas-sith-er*; i.e., "the great money or medium for peace; implying that the natives were harassed and oppressed for tin, just as, centuries after, the Mexicans and Peruvians were for gold." He says further, "*Cas-sith*, pro *cashith*, is possibly the root of the Roman name *Cassius*, which surname would imply that Dio was concerned in the tin trade when he acquired his knowledge of Britain." But, although all the Celtic languages are to a great extent based upon Greek, there are probably not two words in the whole body of the Greek language of Celtic origin. The name Cassiterides is said to refer to the Scilly Islands. Herodotus seems to have been entirely ignorant of them; but Strabo observes that they are ten in number, and he gives many particulars concerning them. The name of the islands is obviously derived from that of the metal for which they were said to be famous. The appellation Cassiterides is a sort of patronymic from *κασσίτερος*, a word which occurs several times in the Iliad, and which is said to have meant "tin," or, as some think, "pewter." Jonathan has *kastira*; the *Hierol. interpre.* gives *kistara*; the Arabic has *kasdir*. In some other authors, *kastirion* is used for stannum, and Buxtorf renders *gasteron*, orichalcum. All these words may be traced to the Sanskrit *kastira*, "tin."

At the Congress of Prehistoric Anthropology and Archæology, held at Stockholm in August last, M. Oppert referred to the importance of linguistic studies in relation to the question of the peopling of different countries. But, says M. Oppert, if the importance of

philology has been sometimes unacknowledged, it has also been sometimes exaggerated. There are many Indo-European languages, but there is only one Indo-European race. There have been upon the soil of Europe mixed populations, invasions which have imposed upon the old European populations a family of languages which have been named Indo-European. Thus, the Spaniards, who speak a Neo-Latin language, are not Romans, but Iberians. In like manner, although we speak languages of Sanskrit origin, our forefathers were not Hindoos. To return more especially to the north, M. Oppert mentions elements in the Scandinavian languages which betray a mixed language and show the persistence of a primitive Finnish population.

In the anthropological section of the French Association of Science, lately held at Lille, M. Broca gave a very able dissertation "On the Geographical Distribution of the Basque Language." He says "It is the most ancient in Europe, and apparently autochthonous. Before the introduction of the Aryan languages, numerous European tribes spoke different, but more or less affiliated dialects, which gradually disappeared before the Aryan tongues, and only the Basque now remains. Before the Romans, Iberia was only conquered by the Celts and Carthaginians, and Iberic is neither a Celtic nor a Phœnician language, and the ancients made no distinction between the Iberians and the Vascons, or Cantabri, ancestors of the Basques. Humboldt's opinion is thus confirmed. The Basque language retreated before the Roman invasion, and we see it disappear in Aquitania and Spain; only the tribes of the Pyrenees backed by the Gulf of Gascony preserved it. It was, perhaps, also retained by the tribes cantoned between the Adour and the mountains, but the existence of the language in this region may have had another origin. In the fifth century, the Visigoths tried to subdue the Spanish Vascons, who lost part of their territory, and many emigrated, passing the Pyrenees, and forcibly established themselves as far as the banks of the Adour. In 602, they obtained from Thierry II., King of Burgundy, the cession of this territory. This was a veritable Basque colonization, and from this epoch may be dated the return of Basque to the north of the Pyrenees. The Spanish Basques are dolichocephalic, the French brachycephalic, and as no other brachycephalic race has come into French Vascony within historic dates, nor any dolichocephalic race into Spanish Vascony, this ethnic division must date from prehistoric times. The Vascons retained their conquest, and, under Louis le Debonnaire they extended it to Narbonnaise; but after the death of their great chief, the Duc Loup, their possessions were divided into three parts among his sons and heirs, forming the counties of Bigorre and Béarn, and the Duchy of Vascony. Subsequently, the Vascon element declined before the Gallo-Roman element; the language disappeared before a *patois* of the *Langue d'Oc*, and the inhabitants of the two counties abandoned the name Vascon, and called themselves Béarnais. The district named Vascony, owing to the excur-

sions of the Vascons beyond the Adour, as far as Dordogne, was transformed into Gascony, and the Vascons of the Pyrenean valleys, changing V into B, took the name of Basques." Dr. Broca further says :—"In France, the line of demarcation between the two languages is very sharp. Except in three villages near Oloron, where certain families teach their children both Béarnais and Basque, there is no point of transition between the two. An *ordonnance* of Charles IX., enjoining the inhabitants of Biarritz to employ French instead of Béarnais as their official language, proves the place to have been no more Basque than it is to-day. Not long since Puente de la Reyna was a locality in which both Basque and Castilian were spoken ; and it was the same near Pampeluna ; but there is no such spot of transition in France."

In the first part of the second volume of his work, "*Essai sur la Propagation de l'Alphabet Phénicien*," recently issued, M. Lenormant deals with the Aramaic type, commonly known as Estrangelo Syriac, which was first used in Mesopotamia, the Palmyrene variety prevailing for some time longer in Syria Proper. Its earliest form is found in the coins of Mannus, King of Edessa, during the time of Hadrian ; but, as some of these show Palmyrene influence, it is thought probable that their legends ought to be considered as transitional. About the sixth century it obtained a wider expansion, being used as a vehicle for the writing of Persian and Armenian under the Sassanian princes ; whilst it was still later, during the seventh and eighth centuries, carried into China by the Nestorian missionaries, and adopted by the Ugurs, the first Tatar tribe that learned to write, and on whose language is partly based the Osmanli-Turkish. This adoption is the more remarkable, as being exactly what the Greeks had done 2,000 years previously, in accepting their alphabetic system from a race with whom they had no ethnic affinity. The Mantchus, in like manner derive their system of letters from the Syriac, though here Chinese influence greatly modified the characters, the result being several new ones of a quaint and grotesque form.*

Dr. Conto de Magalhães, in his recent work on Brazilian anthropology, considers that some of the native languages of Brazil belong to the Aryan family ; and he says it is beyond doubt that Sanskrit has furnished 2,000 roots to the Qquichua tongue. If the Qquichua is based principally upon Spanish, it might, through the Latin, contain some Sanskrit roots ; but even then not one-fifth of the number of root words stated. But the genuine Qquichua does not contain any Spanish words. A debased Spanish is however spoken by the modern Qquichua, and a mongrel dialect may, for aught I know, exist.

At the late Oriental Congress held in London, the Rev. Isaac Taylor read a paper "On the Relations Between the Etruscan and Accadian Languages," both of which he classes under the term "Turanian." Having compared the Etruscan with the so-called Turanian languages,

* Conf. *Athenæum*, 7th February, 1874.

I have not been able to discover any evidence of its Turanian origin. Many facts have been adduced to show that the Accadian or Accad language should be classed under "Turanian;" but on a careful examination of such facts the theory falls to the ground. The agglutinative character of the Accadian is of but little importance, because other languages than those of the Turanian family are also agglutinative. The Accadian pronouns conform, no doubt, to those of the Turanian idioms, but it has been shown that families of languages the most distinct often exhibit in the pronouns a great similarity. Only a few of the numerals agree with those of the Turanian, and this only by comparing them with several languages. The reduplication in the Accadian occurs in other languages besides those of the Turanian family. The conjugations most in use in the Accadian do not accord with the Turanian conjugations. The termination of the plurals is quite different from that in the Uralo-Altaic languages. Again, there is no trace of the law of harmony between the hard and soft vowels, which rules in a measure, more or less, in the last-named languages. Finally, the grammar and vocabulary of the Accadian agree to a great extent with those of the Assyrian.

Mr. Hyde Clarke has again entered the arena of philology. He tells us that the African languages called Houssa, Eboe, Ako, Eyo, Yarriba, Fulah, Mandigo, Bambarra, Fanti, Ashantee, Wolof, Kossa, Kru, and Nufi are of scientific interest because of their connection with the Kolarian of India and the Basque of Spain, the Bambarra being near the latter, and the Houssa near the Kòl language. It may be here observed that the Kolarians are one of the great divisions of the aborigines of India who are supposed to have entered from the north-east, and to have occupied the Gangetic valley before the advent of the Jats or Aryans. Under the name of Santals they form the population of the hill tracts of Orissa, while in Chota Nagpur they are known as Mundas, Hos, and Bhumij. In the west the Bhils and Kols of the Bombay Presidency belong to the same division, which includes also the Koobes of Guzerat and the Meenas of Rajpootana, who have however become mixed with the Jats. Of these, the Bhils and the Kols, who would seem to be closely allied, are the wildest. Without some evidence, Mr. Clarke's statement is of no importance whatever, and it would indeed be quite impossible to give any opinion on the subject without an examination of the vocabularies and grammars of the languages in question. Mr. Clarke has not indeed been happy in his disquisitions on the languages of the Caucasus, the Guarani, Ashantee, and Corean.

The introduction of the English Church service paved the way for the gradual decline of the Celtic dialect of Cornwall. In 1602, it was going fast into disuse. In the early part of the last century the Cornish was still spoken by the fishermen and market women near the extreme south-western point of the county. Pryce tells us in the preface to his work (published 1790) that the Cornish was then spoken at the extremity of the county; and Polwhele (in 1806) adds, that he did not believe that there then existed two people who

could converse, for any continuance, in the Cornish, whether ancient or modern. We learn from the Rev. W. S. Lach-Szyrma, vicar of Newlyn St. Peter, Penzance, that in his parish, viz., old St. Paul's, a few truly Cornish words, and the Cornish numerals up to twenty, still linger in the memories of a few of the old people of the labouring and lower middle class. The parish in question is Mousehole, where, according to tradition, lived Dolly Pentreath, the last speaker of Cornish as her native language.

The Guanás and Chanés, little-known Indian tribes, inhabit the district of Miranda, in Matto Grosso, along the Paraguay, in the neighbourhood of Albuquerque. A dictionary containing more than 2,000 words of the language spoken by these peoples was destroyed in 1867, in the sacking of Nioac. Captain Taunay, of the Brazilian Artillery, has collected a considerable vocabulary, together with fragments of the etymology, phrases, &c., of the language. An account of this vocabulary, &c., will be found in *O Novo Mundo* for May 23 of the past year.

From the same journal we also learn of the publication of the second volume of Dr. Almeida's "Historical Memoirs of the Extinct State of Maranhão." The preceding volume was occupied with the history of the Society of Jesus. The present one contains many rare documents, relations, journals, &c., of great interest for the early history of the Amazon.

General Di Cesnola, who has resumed his excavations at Cyprus, has found a sarcophagus at Golgos (Golgoi ?), a Cypriote inscription, and some glass vases. One of these has, in relief, the name of the maker, Meges, ΜΕΓΗΣ ΕΠΙΟΗCΕΝ, and the curious formula, ΜΝΗCΘΗ ΑΓΟΡΑΣΑΣ,* rendered "the buyer remember." A vase, with a Phœnician inscription, giving the name of its possessor, has also been discovered.

At the last meeting of the British Association, Mr. Clarke read a paper, wherein he endeavoured to show that several of the ancient river names of India, and of India beyond the Ganges, are etymologically connected with similar names in America and Italy. The list given numbers only thirty-three, but the data are said to be only a portion of a large amount of facts. Of course the value of the supposed affinity depends upon whether the names in question are *ancient* or *modern*. We know that many geographical names in Australia and elsewhere agree with those in Great Britain; but we know also that they have been introduced in quite modern times. Mr. Clarke asserts that the names in question originated from languages allied to the Sumarian or Accad, or in some cases to Agau, more particularly in Brazil, where the Guarani prevails. It is a good leap from Eastern Africa to Brazil; perhaps Mr. Clarke has taken lessons of the Bedouin Arabs. But few of the names given would seem to suggest any etymological affinity. It is no doubt a curious fact that Tamarus should be found as the appellation of a

* ΜΝΗCΘΗ looks very like the name *Mnestheus* in the *Æneid*.

river of India, Tamyrus of one in Syria, Tamarus of a third in Italy, and Tamaris (*i.e.*, Tamar) of a fourth in England; but similar names do not always prove a like origin. A river may well enough be named Nar in Palestine, from an oriental word (*nahar*) signifying a river, whilst, on the other hand, the Nar in Norfolk may have been corrupted down from *ιδωρ*, water, and prefixed by *n*. Again, whatever the origin of the names Tamarus in India and Tamyrus in Syria, there cannot be a doubt that the Tamar in England and the Tamaris (now Tambre) in Spain are derived from *ποταμος*, a river, (perhaps from Sanskrit *toya*, *toyam*, water,) the word being first corrupted down to *ptam*, *tam*, which might in time become *tamr*, and finally Tamar; just as the surname Radolph contracts to Rolph, Rolf, and finally, in Icelandic or old Norsk, becomes Hrolfr.

You will admit, gentlemen, that anthropology is the most important science to man, and that its scope allows of a far greater development than has yet been attempted in our country. We have in London at least half a dozen societies specially devoted to antiquarian science, and the metropolis ought to be able to support as many societies devoted to the science of man. Let us, therefore, continue to go boldly on our accustomed course, trying to find out the few scientific facts that, during our short lives, it may be allotted to us to discover, conscious that future Anthropologists will thank us for proclaiming aloud the principles for which we have battled since 1863.

The thanks of the meeting having been voted to the President for his address, the Scrutineers reported the election of the Officers and Council for 1875, as follows:—

President.

Dr. R. S. CHARNOCK, F.S.A.

Vice-Presidents.

Capt. BURTON, F.R.G.S.

J. BARNARD DAVIS, M.D., F.R.S.,
F.S.A., &c.

H. B. CHURCHILL.

Prof. LEITNER, Ph.D.

T. INMAN, M.D.

C. STANILAND WAKE.

Treasurer.

J. KAINES, Doct. Sci., M.A.

Council.

J. GOULD AVERY.

J. BEDDOE, M.D., F.R.S.

C. H. E. CARMICHAEL, M.A., F.R.S.L.

G. HARCOURT, M.D.

G. HARRIS, F.S.A., F.R.H.S.

J. SINCLAIR HOLDEN, M.D., F.G.S.

KELBURNE KING, M.D.

A. G. LOCK.

Rev. P. MELIA, D.D.

J. BARR MITCHELL, M.D.

P. SAYLE, F.S.S., F.R.H.S.

Honorary Secretary.

A. L. LEWIS.

Honorary Foreign Secretary.

C. CARTER BLAKE, Doct. Sci.

ORDINARY MEETING,

Held at 1, Adam Street, Adelphi, on Friday, 12th February, 1875.

DR. R. S. CHARNOCK, F.S.A., President, in the Chair.

The routine business having been disposed of, a paper was read on

LITERARY DUTCH IN OLD ENGLISH PROVINCIALISMS.

By Dr. A. V. W. BIKKERS.

HAVING referred to the opinions of Schleicher and others on the support afforded by philology to the theories of Mr. Darwin, the author gave the following instances (selected from a number which he had collected) of old English provincialisms still preserved in the literary language of the Netherlands.

Taking some verbs first, said Dr. Bickers, I have only here to premise that the Dutch language has transmitted up to the present day the Anglo-Saxon verbal ending, although in a weakened form. I am following the "polite," though, of course, corrupt mode of pronouncing these Dutch verbs when I drop the final *n*.

"To white" is *to blame*; "you lay all the 'white' off yourself." Now, in Dutch VER-WIJT-EN is to reproach, and to "white" (WIJTEN) something at a man is *to lay it at his door* and *to blame* him for it. WIJT, as a noun, is not to be found in Dutch, but VER-WIJT, the intensive form (and hence the favoured variety) is by no means extinct yet. "To wyte" is also Chaucerian.

"To welk," in the sense of *to dry up*, and since no plant or flower can exist without moisture, the Dutch VER-WELK-EN means *to fade away*, and is exclusively applied to flowers.

"To warp" is *to lay* (eggs). WERP-EN in Dutch is *to throw*; and though the Dutch say *to lay eggs* (*eijeren leggen*), one never hears aught but "*to warp*" young (*jongen werpen*) of the smaller animal species. The probable bearing of this verb on the Shakespearian use of *warp*, which has so cruelly crazed the commentators, lies beyond the scope of this inquiry.

"To vang" is *to receive*; in Dutch VANG-EN is *to catch*, and *to receive* is ONT-VANG-EN. BE-VANG-EN is *be-caught* (with fear), and a person GE-VANG-EN is a captive, a prisoner; the gaol bears no other name in Dutch than GE-VANG-EN-IS. Compare the English *fangs*, the catchers, the clutchers.

"To twitter" in the sense of *to tremble*. This provincialism tempts me to open a curious question. Throughout the Teutonic as well as the Romance or neo-Latin languages, the name of the number *two* lies more or less concealed in the commonest verbs expressing *doubt*, *uncertainty*, *suspense*, *suspicion*, and, ultimately *fear*, or *trembling*, as in "*to twitter*." Though the Dutch has no verb equivalent to this provincialism, it possesses such words as TWEE for the cardinal numeral, and a verb TWY-FE-LEN for *to doubt*. In high German *zwei* and *zwei-feln*

are diagnosible to the naked eye. In our own verb *to doubt*, through the French *douter*, lurks the Latin *duo*, *dubitare*. In modern French, *douter* is *to doubt* and *se douter*, *to suspect*. *Redouter*, moreover, means *to dread*, and hence a *redoubtable man* is one *greatly to be feared*. I may finally observe, by the way, that there is a German word *Zwitter* for the Greek *hermaphrodite*.

"To lease," *to glean*; this would be LEZEN, NA-LEZEN (after-leasing) in every Dutch cornfield.

"To long," or "to lang" for, *to reach*. "*Long it hither*," *reach it over to me*. This is a very curious specimen, considering that in the Netherlands also the equivalent verbs LANG-EN and AAN-LANG-EN have already descended into the limbo of provinciality. There is, however, in literary Dutch the odd metaphoric HAND-LANG-ER, or *hand-reacher*; and this means *an accomplice or bottle-holder*.

"To learn" is to teach, in Othello (i. 3), as well as in the vocabulary of the "vulgar." In the purest literary Dutch the same verb (LEEREN) stands for *to learn* and *to teach*.

"Forweend" in the sense of *spoilt*—a "*forweend*" child. The Dutch equivalent is VER-WEND; it is in daily use, and admits of the most perfect analysis. WENNEN is *to accustom*; the final *d* shows the participle past, and *ver* has (here) the force of *in the wrong direction*. AAN-WEN-NEN is *to get into the habit of*, and VER-WEN-NEN, *to cause (a child) to get in the way of bad habits*. [This English provincialism might safely find re-admission into all those well-regulated families in which "páp-pa" is governed by "mám-ma" and "mám-ma" ruled by "baby."]

Leaving the verbs, let us turn to some more *curiosa*, regardless of grammatical function.

A "heeler," I find in a West of England glossary, is *one who hides or covers*, and the author kindly adds (for the guidance of some subsequent Dutch philologist) that there is "a common expression," the "*heeler*" is *as bad as the stealer*. Now, the Dutch also have this assonative proverb—only, faithful to Batavian eccentricity (or Batavian grace), they say that the HEELER is as GOOD as the *stealer*. But there is, moreover, both in the written and the spoken idiom of the Netherlands, a verb, VER-HEEL-EN, to conceal. In its sense of *to cover*, the Dutch equivalent is missing, but the English form is preserved to us in such surnames as *Hellier*, *Hillier*, and *Hilliard*, corresponding exactly to such others as *Thatcher*, or *Thacker*, of which the Dutch equivalent is the family name of *Dekker*.

A "litten," a churchyard. This is a rare red-letter specimen for the philological carving knife. The word is composed of two Saxon-English elements, the primitive sense of the first being *flesh*, and that of the second *enclosure*. The latter prototype has differentiated into our English *town*, the Dutch *tuin*, a *garden*, and the German *zaun*, a *fence*. The archetypal form of the first component element in the word "litten" survives, so far as I know, in but two Dutch words. In German, *leiche* as well as *leichnam* bears now the sense of *corpse*, though in their anterior acceptations the former must have

stood for *flesh*, and the latter for *flesh bag*. The modern Dutch for a *scar* is *lid-* or *lik-teeken*, clearly *flesh token*, to which I beg to append the remark that in Dutch, as well as in the English provincialism the *k* sound has fallen out for very good phonetic reasons. A purer specimen is *lik-doorn*, a thorn in the flesh, a corn, or rather bunion. From *flesh* to *dead flesh*, from *body* (*corpus*) to *corpse*, is one of these denotational limitations which are so especially numerous in the English tongue. *Success* as well as *fortune* meant nothing originally but *following*, *happening*. [In old English wills, I have repeatedly found the testator's clause, "and if it should *fortune* that my wife die before me," &c.]

The word "*blake*" completes the dozen. This has been generally dismissed by English philologists as a divergence from *black*, and I am far from maintaining that the two words do not revert to one common prototype, meaning probably *colourless*, or *dim*.* There is, however, abundant evidence to show that, even half a century ago, "*blake*" meant *pale* or *yellow* and, probably in some cases, *white*. While in some glossaries I have found the simile, "as *blake* as a paigle" (cowslip), I have met with "as *yulow* as a paigle" in many others. In Cheshire glossaries, I have found that "*blake*" was a special appellative for *cheese* and *butter*, and this would set all differences at rest. But there is, moreover, such a family name as "*Blaker*," and this can be nothing else than the harsher form of *Bleacher*. In Dutch BLEEK is *pale*, and the BLEEKER is the *bleacher*; *ver-bleek-en* is to *turn pale*, but also to *fade* (of writing, colour, or otherwise, but never of flowers).

Dr. Bikkers then proceeded to consider the causes of the divergence of the English and Dutch languages, and the laws by which that divergence had been governed. Of the twelve instances given by him above, eight had succumbed in the struggle for existence to Norman competitors, namely, *white*, to blame; *welk*, to fade; *vang*, to receive; *twitter*, to tremble; *lease*, to glean; *forweend*, to indulge; *heel*, to conceal; and *blake*, to pale; and this competition he considered the chief cause of the divergence. Another cause was the natural tendency to differentiation in languages which are separated from the parent stock, and another the elimination of synonyms. Of the latter causes, *go*, *wend*, and *fare* are instances; the first being most used both in English and Dutch; the second being chiefly used in English as a part of *go* (*went*), and in Dutch for *to turn*; the third being little used in English, except in such words as *farewell*, but being used in Dutch not only in that manner, but in respect of all locomotion by water.

Dr. Bikkers concluded by deprecating the modern English preference for cumbrous French and Latin words, and by recommending the comparative study of the English and Dutch languages.

* A curious disquisition on the shifting of colour names may be read in Ludwig Geiger's "Ursprung der Sprache."

DISCUSSION.

After some remarks by Mr. CHURCHILL, Dr. CARTER BLAKE, and Mr. LEWIS,

The PRESIDENT said the society was greatly indebted to Dr. Bikkers for his paper. He thought the word to *twitter*, to tremble, was derived by means of onomatopœia; and he compared it with the Dutch *kwetteren*, the Danish *quidra*, and the Swedish *quitra*. He doubted whether the Norman was crushing out the Saxon; it was rather the introduction of Greek, Latin, and French words. Some time since, a Mr. Bellenden Ker, a great Dutch scholar, had written a work to show that many English nursery rhymes, phrases, &c., are derived from the Dutch language, although they frequently had a totally different meaning in the latter, thus: "As drunk as Chloe" is rendered *Als dronck as kloel*, i.e., as moist as a cleft; as full of wet as a place whence sun and air are excluded by the nature of it. "Money makes the mare to go," *De menig mynch's de meer te goe*, i.e., they are the little that give value to the great; in other words, the humbler classes give the higher their importance; implying that the higher spring from the inferior. "Dead as a door nail," *Die heet als er door'nheel*, i.e., this is what you may call being quite gone.

Dr. J. SIMMS, of New York, exhibited some skulls from Egypt, and made some remarks in connection with them.

The ancient Egyptians, he said, had wide heads, like the Red Indians, and wide heads accompanied a muscular formation, a chest deep from back to front, and square broad shoulders. The ancient Egyptian skulls which he had were wider than those of the modern Egyptians, and belonged to a stronger and more muscular race. The Arabs who now inhabited Egypt were tall and slim, and generally bony. The stronger and more muscular a race was the more warlike it was, and this was borne out by the histories of the ancient and modern Egyptians, who had no relation with each other. There was much resemblance between the ancient Egyptians and the Flathead Indians of North America, one of whose skulls he exhibited; both peoples embalmed their dead, and buried arms and trinkets with them, and both had coarse black hair; but all races not mentally cultivated had coarse hair; as they became cultivated their hair grew finer. He knew a case in England where the hair of an individual had changed in a few years. The Copts were a strong swarthy people, with somewhat thick heads, but they were few in number, and he did not speak of them as the modern Egyptians.

The thanks of the meeting having been voted to the authors, Dr. KAINES, Dr. BLAKE, Mr. OLIVER, the PRESIDENT, and Mr. LEWIS made some observations on Dr. SIMMS' address, the latter drawing his attention to the connection endeavoured to be traced by Professor Gennarelli between the ancient Egyptians, Etruscans, and Americans.

ORDINARY MEETING,

Held at 1, Adam Street, Adelphi, on Friday, 12th March, 1875.

DR. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The routine business having been disposed of, a paper was read, of which the following is an abstract :—

LIFE : ITS ATTRIBUTES AND BELONGINGS.

By T. INMAN, M.D., V.P.L.A.S.

THE author, after some sarcastic remarks upon such modern theories as that life so-called is “the sum of the forces which exist in organized beings,” and that “a vital principle is incapable of proof ; if it exist we cannot know it,” proceeded as follows :—

Starting now from the assumption that every living man has life, our first point is to consider what we mean by the word. We think the best definition which we can give is the following :—Life is that power whereby organized beings can exist, grow, multiply, and appropriate inorganic and other matters, and transform them, in a more or less definite way, into new substances, more or less stable, or which shall in the course of time be resolved by chemical decomposition into other matters. The main point of this definition is, that life is a power acting in a certain direction, and operating upon foreign matters in a distinct manner.

The interest connected with life, or living power, exists mainly in the observations which we can make upon the direction and extent of this agent, and an inquiry into the possibility of modifying its operations ; and after drawing a number of illustrations from vegetables and trees, he observed :—

Without wearying ourselves with enumerations, we may say that no one has discovered evidence of distinct vegetable type-changing essentially its character. What were annuals remain so still ; what were herbaceous in the past are the same in the present ; and the labiatae and cruciferae have the same general characters all the world over.

We must now go a trifle farther, and call attention to the fact that the gardener can produce hybrids : he grafts a cultivated rose on a wild brier, and has made an infinite number of fuchsias ; but when once the florist's art flags, all these hybrids return to an original type. An old standard rose gradually loses its beauty, and when fuchsias are propagated by seed few of them remain true to the secondary type. There is therefore a limit to the power of the cultivator. He can make dog roses double, but if he leaves them they become “canine” again.

When we inquire into the nature of the variations produced by the gardener, we find that they may be summed up in a few words : a fertile plant may be made sterile, or its colour, both as regards foliage and inflorescence, may be changed ; the pelargoniums which

are so much admired have flowers and leaves of almost infinite maculations, and of fuchsias we have scores of varieties. But even here there is a limit, beyond which the artist cannot pass, for he has hitherto found it impossible to produce a blue rose or dahlia, or a yellow fuchsia.

Sterility prevents what may be called development upwards. Double flowers are finer than single, but they rarely have offspring.

I have been desirous of calling attention first to the vegetable world, for we are able to make far more experiments with it than we can with the animal creation.

If we now turn our attention to the latter, we shall find many points which are common between the two kingdoms. For example, we see that certain monads increase their number much in the same way as the cells of the yeast plant, by spontaneous division of their bodies. We can multiply earthworms by cutting off a portion of the body, just as we can increase a willow tree or a pansy. But as we ascend in the scale of animal life, we see that our power in this way is limited. We may cut off the tail or even a limb of a lizard or triton, and the creature will reproduce the part; but we cannot by any contrivance induce a new body to tack itself by growth to the excised member.

The power here referred to is however limited in the creatures which possess it, and if the mutilation be carried beyond a certain extent it is fatal. A lizard, for example, will not produce a new body or a new head if the two are severed; nor will a triton whose brain has been scooped out frame a fresh one.

There are some of the class which we now refer to, for example, the toad, the newt, and the frog, which lay eggs.

The botanist well knows that "radical" leaves differ greatly from the subsequent ones in many plants. In like manner the egg of a newt produces a tadpole, with naked gills and without legs. But the original leaves of a plant usually shrivel up or fall off, and in the same way the tail of a tadpole shrinks when the more permanent limbs appear. The change in all cases is a definite one, and has always a constant direction.

As we may subject the young of the creatures mentioned to experiment, it is natural that inquirers should have made researches into the power possessed by man (*i. e.*, controlling circumstances) to modify the propensities inherent in the young of the frog, or newt. The result of the investigation, as might be expected is, that development may be retarded or prevented, but that it cannot be directed into a new channel. A tadpole has never been converted into an eel, a skate, or a torpedo; nor does that which proceeds from the eggs of a triton ever become a frog, a lizard, or a toad. Again, it does not require profound acquaintance with natural history to know that almost every genus of fish and mollusc deposits eggs in a way peculiar to itself. The observer can say at a glance, "This is a mass of spawn from the whelk; this from a *Dendronotus*, and this from a perch." We cannot discover any particular reason why

one batch of eggs shall appear like a long string, another like a trembling jelly, and a third like a white corkscrew; all are developed into full life under the same circumstances, and one seeks in vain for the cause of a variety of results, outside the fact, that "living creatures reproduce their like."

The chemist and microscopist may examine the composition of the eggs of the duck, goose, hen, and ostrich, and find no distinction amongst them, except perhaps some difference in shape or colour; but under identical circumstances from one egg will proceed a bantam or a Cochin China fowl, from another a Muscovy duck, from a third a Solan goose, and from a fourth an African ostrich. We certainly are not in a position to assert that this remarkable result has arisen from a difference in the atomic formation in the various eggs, or from one having more warmth than another. We certainly are in a position to say that no chemical skill can make a turkey emerge from an egg laid by an eagle, or a barn-door fowl from the egg of a gannet.

We may now advert to another phase of life, which will assist us greatly in noticing the tenacity with which each type remains within certain limits constant to itself. We select for the first example the common earthworm, as an annelid, and with a comparatively simple internal organization, the creature is bisexual—a complication in structure rarely to be found in the higher ranges of animal existence. Besides these, there live in and upon the same ground a number of molluscs known as snails and slugs, which are also bisexual, but no amount of contrivance can induce a worm to produce a slug, or *vice versa*. One might suppose that an animal which had in its own person the female and male elements combined is higher in the scale than one in which only one sex is to be found, such as the frog or vulture; but yet we find that both worms and slugs have to couple with each other, just like tomtits and sparrows. There is, unquestionably, a similarity almost all through organic life as regards the formation of new creatures, but each genus has its own peculiarities, and always reproduces its own likeness more or less faithfully.

If we now leave the matter of form, and turn our attention to the duration of life, we shall find as decided individuality as we have already met with. The silkworm emerges from its egg in spring, becomes a perfect insect in autumn, lays its eggs, and dies: its potential life cannot be said to last more than a year; its active existence is spent in half the time. The dog, on the other hand, cannot be said to arrive at maturity under two years, and lives to about fifteen. I am not able to say whether anyone has endeavoured to prolong the life of a caterpillar, but I cannot imagine that he would succeed. It is however certain, that many individuals have treated young horses as if they had arrived at adult age, and have shortened their lives as a result.

When we permit ourselves to assert that the life which is imparted by its progenitors to a new being has a more or less

definite duration, it is certain that the death of the creature must infallibly ensue. It is obvious that those trees are to be excepted from this category whose tenure of life seems to be practically indefinite or eternal. With this exception we propound as one of the laws of life, that the living power must cease after a certain time. In this respect life may be compared to the weight of a clock, or the main-spring of a watch.

The existence of death is the best practical proof which we have that there is such a power as life. For if that which we describe as vital force is nothing but a collocation of what are called "the inorganic forces," it is clear that science might learn how to form the collocation, and make man as eternal as a *Wellingtonia gigantea*. We know, that for many ages men have entertained the idea that a means could be found of prolonging life indefinitely. One of the things most sought after, in the early ages of chemistry, was the elixir of life, and even yet there are some who entertain the belief that our advanced knowledge will enable men to attain to the fabulous ages which are said to have been reached in ancient periods.

We have now reached what may be considered the starting point of our essay, and inquire, "If there be such a power of living, as vital force, what can we discover about it which is useful to us as men?" We have said that there are limits to the duration of the life of a cat or dog. "Can we find out what are the limits to our own individual existence?" "Have we as persons any power to modify the operations of the force in question?" "Can we live our term of life fast or slow, as we can regulate the movement of the hands of a watch?" And "Can we call in the aid of any inorganic force to eke out our own limited vitality?" It will be seen that many of these questions are more fit to be handled by the physician than by the anthropologist, and I will do my best to shun these. I propose, in the first place, to consider what we know of the origin of the vital power which each man individually possesses, and to inquire whether every person has the same amount. To assist in making my meaning understood I may compare man to a furnace, used to make steam and drive machinery, and to a watch or clock which is wound up; and I shall not notice, except incidentally, the coals used for the former, or the wheelwork of the latter.

We may safely affirm that actually the life of man begins at the moment of conception: say about eight months and a half, or 270 days before his actual birth. But we know practically that it can be traced back even beyond grandparents; for disease which the son has escaped will show itself in the grandson.

When we say that parents confer life on their offspring, can we affirm that all parents confer an equal quantity? For example, supposing that there are two married couples; the one healthy, strong, and without any hereditary disease; the other suffering from consumption, or other formidable complaint which is known

to be transmitted ; should we be justified in regarding the resulting families as equal in vital force or living power ? The answer of all experience is in the negative. The offspring of a delicate couple are not so constitutionally strong as those of robust parents. The next point is, "Can they be made so ?" Here again the answer is negative. The children of the delicate resemble a watch with a poor main spring, or a furnace badly contrived.

We have said that the condition of an individual is determined sometimes by causes long preceding his conception. In proof of this we may state that it takes three generations of the utmost care to convert a wild dog into a domestic animal, and at least a similar duration is required to exalt the wild savage into a quiet agriculturist or trader. It is from the persistency of ignorance and vice amongst our lowest population that all philanthropists receive their strongest check.

But, as we might anticipate, the condition of the parents at the period of conception has also a well-marked influence upon the offspring. Those who have paid attention to the results of the early days of the French Revolution tell us that the children of parents whose lives were spent in daily and fearful terror died shortly after birth of convulsions, or had a strong tendency to insanity if they grew to adult age. The private practice of accoucheurs confirms this statement. Again, it has been noticed, for a long period, that when one or both parents are in a state of drunkenness at the time of conception the offspring is commonly idiotic. A similar state of things has been noticed, although more rarely, when the sire has been weakened by prolonged indulgence.

There are some points in connection with this last observation which deserve attention, inasmuch as they seem to indicate a relationship between life and intellectuality. We believe that the nervous system is more intimately related to life than any other part of our body, and that the mind has its seat in the great nervous centre. Experience shows that excessive indulgence will produce disorganization of the whole of the spinal cord ; consequently that the act of imparting life has an influence upon the seat of vitality. Practically, we see repeated instances where the production of new lives is followed by death in the parents. This is common amongst toads, frogs, and silkworm moths.

On the other hand, we know that intellectual pursuits develop the nervous centre, just as habitual work increases the strength of a blacksmith's arm : there is then an antagonism, *à priori*, apparent between great mental activity and indulgence in animal passion. This, which theory propounds, experience on a large scale confirms, for it has been remarked, almost from the earliest times of intellectual vigour, that the deepest thinkers, and men of the most highly cultivated genius, have either been childless, or have had small and delicate families. *Per contra*, those who indulge their animal passions inordinately have small mental energy—not even that

which enables them to break through the trammels with which their debauchery has enchained them.

If these views are based upon truth, it follows as a corollary that excessive indulgence not only deteriorates the vitality of an individual, but prevents his begetting vigorous children. My experience as a physician could supply well-marked cases illustrative of the truth of both these deductions.

Having thus concluded that we may curtail our vital force by too fast an expenditure thereof, we will, without mentioning other methods of effecting the same result, next inquire, if there is any means by which the duration of our life can be extended—by a plan analogous to the regulator of a watch, or the damper of a furnace flue, for diminishing our expenditure of living energy. To answer this query in detail would require a book, and I shall in consequence only take up one subject. If we ask ourselves, “in what the vital force in our body is employed?” we soon discover that its chief occupation is to take in, digest, and distribute food, and to direct the expulsion from the body of the atoms which have been used up. Unless it has vitality we may fill a stomach with provender, yet the food remains what it was. Under the management of the power which each of us has at birth that “victual” becomes chyme, chyle, blood, brain, bone, muscle, and the like. We infer, then, that if the vital power has only a definite duration or limit, an excessive expenditure of it upon what is called “assimilation” will be a drain similar to that above referred to. The coals will be burned too fast. Now it is tolerably clear that the call upon the vital powers to digest and assimilate food is in proportion to the food required. Food is wanted for three main objects: for growth, for persistence, and for warmth. Passing by the first of these as being applicable only to the first third of our existence, we may make short work of the other two by affirming that a life of excessive toil, or an existence spent in such climates as Terra del Fuego, without adequate artificial heat, is incompatible with long life.

Suppose now that we have a man who has not inherited a strong vitality, and we desire to prolong his span of life, we should prevent his working too hard and being too cold. Experience tells us, as anthropologists, that the appetite is increased enormously in polar climates, and that as a rule it is equally augmented by muscular exertion. Under these circumstances an amount of food is taken, digested, and distributed trebly greater than would be required by a man living in a warm climate, and rarely using his muscles. The tax upon the vitality of an African negro in the matter of digesting food is small, for he works little, and has not much difficulty in sustaining his heat.

Hence we infer that in climates like England and Germany a careful attention to warmth and comfort is equivalent to a hoarding of vitality. Practically we know that it is so, for the most long-lived amongst us are those who have leisure and warmth at command. We do not by arguing thus affirm that heat and vitality are correla-

tive; but only that heat augments, or, more correctly, conserves vitality, by giving it less work to do in producing caloric by chemical combustion.

Electricity has never justified a claim to the conservation of vitality.

Having drawn attention to the permanence and localization of the different varieties of the human race, the author observed:—If then we find that there is throughout all creation, which is known to us, a restriction in every genus of living creatures to one particular shape or form, mode of life, &c., we are, in my opinion, perfectly justified in regarding with distrust the theory which would endeavour to prove that life is not a definite force, compelling growth in a certain direction, and that it is a fortuitous collocation of inorganic influences which prevents a steady succession from parents to offspring, and is compatible with a series of wonderful deviations upwards. We have, however, remarked that the life which is imparted at conception does not invariably direct growth upon an absolute pattern. There is dissimilarity even where there is resemblance—a family likeness, but a separate individuality. In like manner, from causes which we are unable to explain, there may be peculiarities of the young child which are incompatible with mature life, although not with intra-uterine existence. Our European museums teem with what we call “monsters”—creatures with faces but no heads; with one head and two bodies; or with two heads and one body. We have seen the Siamese twins, who were united by a broad band breast to breast, and negro twins who are joined at the bottom of the back so as to resemble the letter X; but amongst all these monstrosities, one never has found a human child with the skin of a rhinoceros, the arms of a monkey, the trunk of an elephant, the hoofs of a horse, or the snout of a hippopotamus.

Moreover, under the operation of life, every individual part of the child resembles every separate part of the parent; not only in actuality, but in propensity; for a similar change will take place in the son, and in the same part as that which took place in the father at a corresponding age, and that in details only discoverable by the microscope.

By means of certain observations, a microscopist can also tell whether the specimen before him has come from an individual in perfect health, or from one whose vitality is impaired. For example, a capillary vessel in the brain will tell of youth or age, and a section of the aorta proclaim senility.

Upon this subject the observer might descant indefinitely; and as I have already written a considerably sized book on the subject (“Foundation for a New Theory and Practice of Medicine”), I think that I have handled it sufficiently.

In taking leave of the matter, a recapitulation may be made of the main points to which I call attention.

1. That life exists as a power.
2. That life shows its power in a distinctly defined method.

3. That the life imparted from parent to offspring is essentially the same in each distinct type of organisms, every specimen of the genus being built as it were in the same mould.

4. That the life imparted to one set of creatures is distinct and different from the life possessed by other classes.

5. That the phenomena of life are constant in each genus within certain well-defined limits.

6. That the vital power has in each individual a more or less definite duration.

7. That every human being has not the same power of living as his fellow-men.

8. That vitality may be impaired.

9. That vitality is allied to the nervous system and to mind.

10. That food is not the vital power, but only its sustenance; just as coal is not fire, but its fuel.

11. That the vitality of every known creature acts in so definite a manner as to make it difficult to believe that the life of any creature has acted capriciously in days gone by, or is likely ever to do so in the future.

12. That as distinctness marks the life of every known organism, it is not right to assume that the definite life power given to any creature has been exercised so capriciously as to change its whole form and character. A pig, who has only power given at conception to be a pig, cannot grow into a camel; and if one pig or a pair cannot produce anything else but pigs, neither can fifty millions, for there is no more life power in the mass than there is in the units. Time is an element of no consequence as far as vitality is concerned. Man remains man steadily.

It will be noticed that I do not refer to life after death. My views may shortly be summed up thus. If life be a definite power, definite in its duration, and only able to exist under well-defined external circumstances, it passes away as completely as does light when the sun has gone down. As nobody would think of discussing where a fire is which has gone out, so it would seem to be absurd to ask, "Where is the life that has left this corpse?" Those who entertain a belief that there is a life after death, must draw their arguments from other sources than observation and experience.

DISCUSSION.

After some remarks by Dr. CARTER BLAKE and Mr. LEWIS, the following paper was read:—

AN INQUIRY INTO THE CAUSES WHICH HAVE LED TO THE RISE AND FALL OF NATIONS.

By KELBURNE KING, M.D., M.A.I., F.L.A.S.

THE most cursory glance at a map of the world will suffice to convince anyone that certain portions of the earth's surface have

exercised far greater influence than others in the history of our race. Many large tracts of country are uninhabited; others still larger might as well almost have been uninhabited, for any impression they have made on the march of progress and civilization. All Africa, except the valley of the Nile and the strip of its northern boundary forming the southern shore of the Mediterranean Sea, is a mere blank in everything that, as far as we know, concerns the advancement of mankind. The same may almost with equal truth be said of the American continents previous to their colonization by European peoples; and though there existed on these continents empires, as Mexico and Peru, which had attained a certain point of advancement in law, government, and art at the time of the arrival of the Spaniards, these states had not reached the level of the old European civilization of Greece and Rome; they seemed rather to belong to that stationary condition of semi-civilization represented now by the empires of China and Japan, and hardly advanced, if at all, beyond the old civilization of the Egypt of the Pharaohs. There are evidences of an older civilization still, extending over still greater areas of the American continents; but these ancient monuments prove only a long antiquity of the human race; there is no proof that those empires exercised any influence on that gradual amelioration which has raised our race from a position of extreme savagery to that enjoyed by the highest European nations. The same remark will apply to the empires of the yellow races in Asia. They are either crystallizations of a past stage in the long line of gradually developing civilization, or offshoots of the great tree, leading to nothing higher, and therefore doomed to decay and death. Even that extraordinary Indian empire which has become within the last hundred years an appanage of the English crown, does not seem to have influenced greatly the march of European civilization, although it contains, perhaps more than any other area of the earth's surface, an epitome of the whole past history of our race. There are still to be found specimens of very old, possibly the oldest, inhabitants of the country, who are not yet sufficiently advanced to quit their old habitations in the trees, who build no huts, use only the rudest weapons, and have hardly the rudiments of language. From this lowest type is found every variety up to the descendants of the race who spoke Sanscrit, and whose writings in that form of the Aryan language—supposed by some to be the most perfect of all—merit a place beside the highest efforts of the most civilized peoples. Though, perhaps, no country possesses such interest to the student of our race as India, it has not greatly influenced the present condition of civilization beyond its own boundaries. But to the north and west we come upon what once were the mighty empires of Babylon and Assyria, and that Persia which so nearly succeeded in crushing out the first sparks of European civilization in Greece. Still travelling westward we come to Palestine, and are reminded of the prodigious influences which have been exercised by that narrow strip of territory on the religious beliefs of modern Europe. We

find the ruins of Tyre and Sidon, and recall their past greatness, their ancient commerce, their mighty offshoot on the southern shores of the Mediterranean, which for one hundred years contested with Rome for the supremacy of the ancient world. We may now contrast the small space which Greece occupies on the map with the immense influence which it has exercised in the history, the government, the literature, the science, and the art of all succeeding time. Nor has Italy any such commanding features as would have led us to suspect the preponderance which was acquired by imperial Rome—a preponderance the results of which are widely felt to this day, not only among what are called the Latin nations, but all over Europe.

I need say no more to show that mere space is not, or at least has not been, a measure of the power which one part of the earth's surface has exercised over the rest. This by general consent results from the character of the inhabitants, not from the extent of the country; and hence comes the inquiry, How is it that some races have acquired dominion over others; have impressed their characters upon much larger populations than their own, and have even exercised a powerful influence, after they have themselves ceased to exist as independent nationalities?

Such is the diversity between different races, that some have thought it could be explained only by diversity of origin; and many and weighty arguments have been adduced to prove that the most widely separated races of man, as the black, yellow, and white, are really distinct species, derived from different creative acts, or in some way representing a distinct origin. The question can only be glanced at here; but we have the less occasion to dwell upon it because, firstly, the general agreement of scientific men tends more and more to the belief that "all the races of man were descended from a single primitive stock;" and, secondly, even if it were not so, the races which we shall have under our consideration are too nearly allied to be affected by any supposed plurality of original stocks. Still it is as well to clear the ground at the outset from any possible idea of separate independent origin, and it is pleasant to find that by the consent of writers so widely separated as Sir John Lubbock on the one hand, and the Duke of Argyll on the other, the identity of origin of the various races of mankind is admitted on the condition—now almost universally received—of a greatly extended chronology.

But if not from difference in origin, whence arises the admitted distinction in character and form? External surroundings have no doubt exercised great influences; and we have often heard national peculiarities described or assigned to the results of climate, of the formation of the country, and the fertility of the soil. We are told that the inhabitants of warm countries being easily supplied with the necessaries of life have less occasion to exert their faculties, and are consequently less energetic than the inhabitants of colder climates. The natives of mountainous regions, also living in a more bracing air, have greater difficulties in cultivating the soil than the

dwellers on the plains ; and are consequently more “hardy, bold, and wild,” and cling more tenaciously to their barren homes, which being natural fastnesses are easily defended by a few resolute men against the attacks of even more numerous enemies ; while the dwellers on plains, having no natural fastnesses, become more readily bound in the bonds of servitude ; their monotonous lives are in accordance with the monotonous scenery which surrounds them ; and having no interest in life beyond the supplying of the meanest wants of nature, there is no reason why they should make sacrifices or fight to the death in defence of a fatherland which is to them merely a scene of continuous labour and weary uniformity of toil and suffering. They are therefore deficient in courage and patriotism ; are ready to follow the lead of the stronger, or rather to have their fate decided without any intervention of their own, and to exchange one set of masters for another, without suffering any sentimental chagrin because their new lords are foreigners rather than members of their own or allied races.

It is true that the extremes of heat and of cold are unfavourable to the development of the higher qualities of our race. No ruling race has yet emanated from arctic snows or from equatorial heats. And it is also true that many level countries are occupied by races which have been kept for many ages in a condition of the lowest mental and physical degradation compatible with making them useful tillers of the ground. The Bengal ryot cares little whether his master is a Brahmin, a Mohammedan, or a Christian. The Chinese peasant saw with indifference the extinction of his native dynasty, and the substitution of the Tartar conqueror. The Egyptian Copt works wearily now for his Mohammedan master, as he worked before for the Arab, the Roman, the Greek, the Persian, or the native Pharaoh, who all in turns have lived on the fruit of his labour, and given him but scant food and raiment in return for his toil. But though a certain amount of weight must be given to the external surroundings, the question of predominance of race is not one of mere physical geography.

The temperate zones on both sides of the equator include within them immense tracts of country, which might have been covered by the sea for all that their inhabitants have done for the advancement of mankind. Admitting that all the dominant races of man are included within the temperate zone, how small is the space occupied by these races compared with its whole extent ! And if the inhabitants of the plains have been frequently unwarlike and unprogressive, let us not forget that a great plain extends from the mountains of Wales to the Urals, which, besides Englishmen on this side of the German Ocean, contains Dutch and Belgians, Germans and Slaves on the other. No mountaineers have ever turned their natural strongholds to greater account than did the inhabitants of the Low Countries in their long struggle with the might of Spain, and of all that Spain could then bring into the field against them. The Germans—now the leading nation on the Continent—have for the

last 2,000 years held the plains they at present occupy; and the Slaves—less known and understood—have in the past played no inconsiderable part in the world's history, and will, unquestionably, play a much greater rôle in the future.

Again, we are told that the cause of the predominance of certain races is to be found in their form of government. The ancient military monarchies of the Assyrians, Babylonians, and Persians, and the modern ones of Spain and France, the republics of Greece and Rome in the ancient world, of Italy, the Low Countries, and lastly America in more modern times, have been severally looked upon as states whose peculiar form of government was a principal motive cause in the greatness they have attained; while, some years ago now, our own mixed monarchy was supposed to be the great ideal from which flowed national prosperity, wealth, and power. The mere enumeration of these different forms of government, each so incompatible with the other, is sufficient to show that this can only be the result of certain habits of thought and action among a people, and except in so far as it is a good or bad exponent of national character, cannot be a primary agent in leading to the predominance of any race. I mean that a really powerful race will choose that form of government most suited to its own genius, and by which it can work best, and will often, in spite of great defects in the rationale of government, accomplish its ends by permitting modifications which would at first sight seem incompatible with the ordinary working of its own system. Thus, Rome, though jealous of the supremacy of any one citizen, acknowledged the occasional necessity of a dictatorship, and admitted within its senate representatives of the people who could veto any or every enactment of that body. Such a government was ready at any moment to become wholly unworkable, yet it sufficed to carry on the business of government until Rome had conquered all Italy, subdued Carthage, and become the first power in the world. It will be recollected that a somewhat similar power of veto in the National Assembly of Poland has been universally regarded as one of the principal causes of the fall and ruin of that ancient and famous kingdom. But it is clear that the same cause could not in itself have produced the rise of Rome and the fall of Poland. It is evidently to be sought elsewhere than in the form of government.

When I first began to think and speak on these subjects, it was thought unpatriotic to doubt that our English form of government was not only superior to all others, but was one great cause, if not the great cause, of our national prosperity. Since that time, in common with other patriotic Britons, I have had several times to mourn over the ruin of our constitution, and to await the results with fear and trembling. The expected disasters have not yet taken place, and will not take place from any mere change in the form of government, unless that change depends upon an alteration in the character of the people. However successful here, it must be confessed, I fear, that the English system has turned out

a failure elsewhere ; and most people, I fancy, now admit that it is not owing to the government, but often in spite of it, that the happiest results have been achieved for the prosperity of England.

We have been told that the success of a nation depends upon the purity of its religious worship ; and again the facts of history disprove the assertion. Heathen Rome conquered the East and the West. The Roman empire when Christianized was conquered in the West by Pagan barbarians, in the East by Mohammedan Arabs and Turks. It is true that a progressive race is not likely to adopt or to hold on long by an effete form of religious worship. But there is abundant evidence that the possession of a higher and purer religion will not save a decaying race from the attacks of a more vigorous one whose religious beliefs are even gross, sensual, and cruel. At the present moment the most ancient and revered Christian shrines are in the hands of the followers of the Arabian prophet. Bethlehem, Jerusalem, and Nazareth are governed by Turkish magistrates. As a great favour the heir of the British crown was permitted to see the cave of Machpelah, connected though it has been with our religious associations for the space of nearly four thousand years. Where are now the seven churches of Asia ? Beneath the dome of St. Sophia, in place of the Christian liturgy, of which it was the great Eastern minster for one thousand years, are now to be heard only the Mohammedan calls to prayer. Where are the once flourishing bishoprics of Northern Africa ? How is it that from all those great seats and centres of Christianity the purer form of religion is displaced, and a less pure, less idealized, and grosser form is substituted ?

But we need not go so far from home to see that purity of religious faith is not in itself a protection against conquest and ruin. In our own island there existed when the Roman legions withdrew a considerable civilization and a Christian church. But neither civilization nor religion saved the Britons from national destruction—Mr. Freeman says extermination—at the hands of a barbarous and Pagan race. I do not believe in the extermination of the original race. Ferocious, bloody, cruel and barbarous as the Anglo-Saxons may have been, I doubt whether, except in the vicinity of their early encampments, they exterminated the original inhabitants ; not that I credit them with any milder feelings than the instincts of mere selfishness. But Britain was evidently thickly peopled in the time of Julius Cæsar. The national prosperity enjoyed by the Roman province would naturally tend to increase the population ; and barbarians, who even brought their wives and families, and cattle, would not be either sufficient in number to exterminate the entire native stock, nor would it suit their purpose to root out a population accustomed to cultivate the soil, and so to minister to the wants of the invaders. No doubt all the houses of the higher classes would be plundered, and their owners either massacred or driven westward. Their own institutions, religion, and habits were preserved intact by the invaders, but vast numbers of the

labouring population, of the women and children, of those from whom nothing was to be feared and something gained, would be left to administer to the wants of the conquerors. Still Christianity, which probably was not very widely diffused among the lower classes, disappeared and was forgotten. The highest Monotheism gave way to one of the lowest forms of Polytheism, and superiority of religion did not protect the Romanized Briton from his heathen and savage conqueror.

I hold, then, that those qualities which have led to the predominance of certain races are not to be explained on the principles either of diversity of original descent, peculiarities of climate, &c., superiority of forms of government or of religion, but they are doubtless the results of physical causes; and an examination of the races who have achieved predominance in the past may lead to the discovery of certain points in which they all resemble each other, and which may therefore be taken as the causes of their ascendancy.

Although history, in the usual sense of the term, is not considered to be a subject for anthropological investigations, there is one view of historical events which brings them within our scope, and to this I would call your attention. In so far as history details the acts of kings, statesmen, or generals, it is outside our pale; but when we take broad views of the great events in the written records of our race, and trace them to the results of racial differences, we bring the broad stream of history within the cognizance of the science which concerns itself with the natural history of man; and the subject to which, in this meeting, I wish to call your attention is the effect of intermixture of highly developed and allied races in producing what we may call new races, who occasionally excel in mental and physical qualities any of their ancestors, assume great predominance during a longer or shorter period of time, but seem, as far as we can judge from the records of the past, to have a shorter, if more brilliant, existence than the purer races from which they are derived. During the period of their greatness these mixed peoples exhibit a wonderful physical development and fecundity, not only becoming greatly more numerous in their own country, but overflowing their borders, occupying other seats either as colonists or conquerors, or both; and this material development is accompanied by a corresponding intellectual progress—the great epochs of literary brightness usually marking the maturity of one or other of these mixed races.

First of all I would divide the races of man as we know them at present, or have studied them in history, into two great classes, the pure and the mixed; and I would limit the consideration of races to those which are nearly allied. The boundaries occupied by the white, the yellow, the black, and the red races are pretty well defined, and have remained so, except when disturbed by conquest or colonization, during the whole period of history. But when I speak of mixed races, I would limit myself to the blendings of allied races, excluding altogether such compound races as are formed by the

mixture of black and white, white and red, red and black, and other hybrid races. The distinction between the parents is too great to permit of any beneficial admixture, and such hybrid races are usually of little account, as they ordinarily die out or return to one or other of their primitive forms. I would also confine myself to the consideration of the white race, and more especially to what is commonly called the Aryan division, though I believe the laws I am about to lay down would apply equally to the Semitic peoples, and probably also to the other great subdivisions of the human family.

Limiting ourselves, then, to the European races, I would divide them into the pure and the mixed. The pure races, the Pelasgians, the Iberians, the Celts, the Germans, the Scandinavians, the Slaves, are all members of the great Aryan family. The first occupied Greece and Italy; the second the Peninsulas of Spain and Portugal; the third France, Britain, and Ireland; the fourth Germany from the Rhine to the Oder, from the Baltic to the Alps and the Carpathians; the fifth, the Peninsulas of Denmark, Norway, and Sweden; and the sixth the whole countries beyond these limits, the greater part of Old Prussia, of Russia, of Poland, of what is now Turkey in Europe, and Bohemia.

What I would lay down as the law of ascendancy in Europe is, that an admixture of two or more of these races has occasionally produced a race superior to either of the parent stocks, which for a time multiplies with extraordinary rapidity, during which it becomes the predominant race for the time being, but eventually either dies out altogether, or returns to one or other of its primitive forms. The pure races, on the other hand, hold their old boundaries with wonderful pertinacity, and as in the case of the Basque Provinces of Spain, sometimes show a capacity of outliving many separate races who have at different times held the reins of government but have successively died out or been absorbed in the general ranks of the population. We have, then, pure races, fixed comparatively in geographical distribution, in numbers, in habits, and generally in languages, distinguished by permanence; and the mixed races, rapidly increasing in numbers, throwing out colonies in all directions; obtaining great, sometimes universal, dominion, but finally receding to their original boundaries, losing their peculiarities, and suffering a decay as marked as their former rise and progress.

A conquering race, then, I take it, arises from the admixture of several nearly allied races, bound together usually by resistance to a superior force, or welded together by foreign conquest. The race so formed has a period of maturity, during which it increases greatly in numbers, excels in literature, science, and the arts, then ceases to extend in number, loses its pre-eminence in intellectual development, and finally either ceases to exist altogether, or takes on a lower form of life, corresponding probably to some one or other of the races from which it was originally derived.

Let us look shortly at the history of some of the most remarkable

dominant races of the ancient and modern world, and see whether their history is accordant with this theory. First, with respect to the Greeks. Grote considers that the Greek was a special creation. Like his own Pallas, he started full grown and full armed from the head of Zeus. But Bishop Thirlwall considers that the islands of the Egean were from a very remote antiquity, "steps by which Asia and Europe exchanged a part of their wretched population," while in the north flying or conquering tribes would continually pass southwards; thus a mixed race would be formed, loosely connected, but most probably acting together in some coherent way, as proved by the legends of the Trojan war. Then came the wonderful events of the Persian invasion; the extraordinary outburst of literature and art which followed, and is unequalled to this day in the world's history; then the welding together of the whole race by the conquests of Philip and Alexander, the final predominance, established by Alexander, of the Greek nation all over the East; which lasted, little affected by the subsequent Roman conquest, until a new history was begun for these countries by the conquests of Mahomet and his successors. But long before the final overthrow of Greek ideas and influence, the nation had lost its peculiar character. The population declined. It sent out no more colonies, gave no new impulse to thought, and ceased even to be original in art. Though the Greek language and nation still survive, the characters of a dominant race have long been gone, and "Greece is living Greece no more."

Let us now turn to the Romans, the successors and conquerors of the Greeks. Like them they originated from a mixture of many races, out of which ultimately sprang the great Roman race, which multiplied exceedingly, stamped on all southern, western, and central Europe an impression which lasts to this day, swallowed up in its empire all the known world worth the trouble of conquering, then gradually dissolved and disappeared, dying out both as to the numbers and the distinctive qualities of the race.

The Romans never claimed to be children of the soil. They were composed of Latin and Oscan tribes, added to an original Pelasgic stock common to them with the Greeks. They showed in their early history signs of a great, new, and energetic race having appeared on the scene of history. So late as 380 B.C. the city was taken by the Gauls, but a hundred years after it was the mistress of Central Italy, and pressed hard on the Grecianized southern portion of the peninsula. Pyrrhus, king of Epirus, the last representative soldier of Greece, came to the assistance of his fellow-countrymen, and Rome for the first time measured swords with a non-Italian power. The result was prophetic of the future. Pyrrhus, the greatest warrior of his time, went home discomfited, and no Italian power for the future could cope with Rome. Then came the Carthaginian struggle, which lasted more than a hundred years (264 to 146 B.C.), and left Rome the most powerful state in the world. The Romans were then clearly the

dominant race. After Hannibal had failed, no accidental genius could hope to turn the scale against

“The master mould of nature’s heavenly hand,
Wherein were cast the heroic and the free,
The beautiful, the brave, the lords of earth and sea,
The commonwealth of kings—the men of Rome.”

The conquests of Africa, of Græce, of the East, of Spain, and of Gaul followed in rapid succession, and such was the pride of race, that a Roman citizen claimed and was allowed peculiar privileges all over the civilized world. Then appeared that remarkable fecundity which distinguishes the mixed and conquering race. “Wherever the Roman conquers he inhabits, is (Gibbon) a very just observation of Seneca, confirmed by history and experience.” “The native of Italy,” says Gibbon, “allured by pleasure or interest, hastened to enjoy the advantages of victory, and we may remark as a proof of the vast system of colonization which prevailed, and which yet could not prevent the continual increase of population in both city and country, that forty years after the conquest of Asia 80,000 Roman citizens were massacred in one day by the cruel orders of Mithridates.” “These voluntary exiles were engaged for the most part in the occupations of commerce, agriculture, and farming the revenue. But after the legions were rendered permanent by the emperors, the provinces were peopled by a race of soldiers, and the veterans, whether they received the reward of their services in money or land, usually settled with their families in the country where they had honourably spent their youth.” Pliny tells us that no less than twenty-five colonies were settled in Spain, nine in Britain, of which London, Colchester, Lincoln, Chester, Gloucester, York, and Bath still remain considerable cities.

As in spite of this prodigious emigration the population at home continually increased, it is evident that the reproductive powers of the race were at this time prodigious. Literature, science, and art shared in the general progress. The eloquence of the Roman forum was as celebrated as the genius of the soldier or the administrative talent of the governor of the provinces. Rome reached its acme and then came the inevitable decline. Symptoms of this decay began to show themselves even before the culmination of the Roman power under Trajan. Tacitus notes as one of the signs of his times that the Roman citizens in Gaul, who shortly after the death of Augustus numbered nearly 3,000,000, had diminished to little more than 500,000. The race of independent freemen had disappeared. The bone and sinew of the country were gone, and nothing was left except a few overgrown patricians on the one hand, and a multitude of serfs on the other. But no wasting war, no dire pestilence nor consuming famine, no external calamity had occurred to decimate the descendants of the hardy veterans of Rome. Nor can the imperial government be blamed justly for this decay, for during the hundred years that followed the death of Julius Cæsar the population increased more rapidly, the external power and material prosperity

advanced higher than they had ever done before. When Rome reached the zenith of her power and her population, the indispensable condition on which all mixed races acquire their dominion began to be exacted; her population ceased to increase, then began to diminish, till for the purposes of extensive dominion it may be said to have altogether disappeared. Yet for a long time the remnant of the Roman race struggled manfully against their fate. Whenever 30,000 legionaries could be collected, the most overpowering odds of the German barbarians or Arabian zealots contended in vain. There is something grand in the vigour displayed up to the very last. Stilicho, with but a comparative handful of legionaries, baffled the warlike genius of Alaric and his hordes of Goths; and Belisarius under even more hopeless circumstances made for himself, as Gibbon says, "a name that can never die." But valour and genius were alike unavailing. Destiny could not long be averted, and the Roman empire fell because the Roman race had disappeared.

Mark what happened then. The governors were gone; the governed were left. I shall speak to-night only of the western portion of the empire, though the lesson to be derived from the conquests of the Arabs and of the Turks in the East is precisely the same. Spain, Gaul, Britain, and Italy itself were deprived of their defenders, who were recalled to protect the heart of the empire, now removed to Byzantium. The vacuum was soon felt in that vast ocean of barbarism which extended from the Rhine and the Danube to the Wall of China. Its surges had been often felt by the Romans when at the height of their power. The Provincials who had imbibed Roman art, civilization, and law, had totally lost the use of arms and martial exercises, which a conquering race, few comparatively in numbers, can never be expected to foster or even to permit on the part of the conquered. They now fell an easy prey to the hosts of barbarians who flocked from their forests to enter upon the possession and enjoy the spoils of what had been the Roman provinces. This process of occupation went on during the whole of the fifth century. When Alaric was leading his Goths to the sack of Rome (A.D. 410), he passed through the plains of *Aquæ Sextiæ* (Verona), and saw there whitening in the sun the huge bones of the Teutones who had fallen five hundred years before under the disciplined valour of Marius and the Roman legions. The men of Alaric were neither stronger nor braver than their kinsfolk; but there was now no Marius to withstand them, and had there been, there were no Roman legions for him to command. Thus Franks, Burgundians, Goths and Visigoths, Angles and Saxons, Longobardi, and many other barbarous tribes, were installed as masters in the once opulent and prosperous Roman provinces. Spain (410), Gaul (Clovis at Soissons, 480), Britain (455 to 586), and Italy (476), after longer or shorter periods of resistance, all fell ultimately under the power of one or other of the German tribes who were hastening to divide the plunder of the western world. But these new rulers

were not a conquering race in the same sense as the Greeks and Romans had been. They emigrated in whole tribes from poorer and less genial to richer and more fertile territories. They found decaying populations accustomed to servitude, and they accepted the situation, and sat in the seats of the former masters. They left their native country, not because the race was multiplying with the rapidity which characterizes the early maturity of a mixed race, but because the conditions of life were easier in the lands to which they emigrated than in those which they left. They brought with them neither a higher culture nor a purer religion, for in these respects they were inferior to the conquered. Neither were they guided by any great idea or policy, nor did they add anything to the power or prestige of the country from which they came. What they did bring was new blood, bone and muscle, so to speak, to the populations among whom they settled, among whom they ruled, and by whom they were in most instances gradually absorbed. In this way there sprang up the mixed races of modern Europe, and we find once more that new races superior to any of the parent stocks began to appear upon the scene. But what a dreary period intervened! What an interminable series of violence and bloodshed, fraud and treachery, distinguished, or rather darkened, the long period during which the German tribes held undisputed sway over the fairest countries in Europe! Once, indeed, under Charles the Great, there seemed a probability of a really great empire being built up (768 to 814). But the genius of one or even of several men produces no lasting effect, except it works in harmony with physical law. The empire of Charles broke in pieces after his death, and it was not until the new, mixed, and conquering races reappeared on the scene that anything like settled government and continuous good order prevailed in Europe.

From the tenth to the fifteenth century these new races showed themselves in Italy, Spain, France, and England. Time forbids my entering on the long and difficult subject of the Italian and French races; but I shall endeavour very shortly to show that in Spain and in Britain new races arose out of an admixture of several, and that they displayed all the characters of the old dominant classical nations.

The Spaniards, then, are, first of all, a mixed race. This is easily shown. The Pyrenees were forced by barbarians in the year 411. Suevi, Alans, and Vandals entered the devoted province. Their ravages were dreadful. "Towns pillaged and burnt, the country laid waste, the inhabitants massacred without distinction of age or sex, were but the beginning of evils. Famine and pestilence made awful havoc. The wild beasts made war on the human species, and the latter consumed the very corpses of the dead; nay, mothers are said to have killed their children to feed on their flesh." The Vandals ultimately crossed the Straits of Gibraltar to subdue northern Africa, and the other barbarians were gradually brought into subjection by the Visigoths. One of their kings finally

succeeded in forming a kind of government about the year 522, and the Goths remained masters of Spain for two hundred years. Everyone knows how their power was broken, and their last king, Roderick, killed in battle, in the year 711, by the Saracens, who extended their dominion over the whole peninsula with remarkable rapidity, burst through the barrier of the Pyrenees, and in 833 received on the field of Tours, at the hands of Pepin, the first signal and, as it turned out, decisive and permanent defeat which had yet occurred to the followers of the Arabian Prophet. A kind of sentimental regret is often expressed for the royal Goth slain in battle by infidel invaders, fighting in defence of his country and kingdom. But we cannot feel much sympathy for the ruin which overtook the Goths. Their cruel despotism over their slaves; their horrible persecution of such as differed from them in religion, must brand the memory of these tyrants and bigots with everlasting infamy. The Visigothic monarchy was founded in usurpation and blood, and its end corresponds to its beginning. "It deserved to fall, and it fell." Under the Saracens Spain enjoyed great prosperity. "Their empire reached its culminating point in the latter half of the tenth century." Commerce flourished and riches were accumulated in an unexampled degree; a powerful navy was formed and maintained in full activity; arts and sciences were cultivated with ardour; many splendid public works were undertaken; the king was the friend of industry, of merit, and of poverty, and generally the government may be described as enlightened, beneficent, and powerful, when compared with that which had preceded it. The Christians were driven into Asturias, where Pelagius and his successors maintained an independent sovereignty. As Arabian power declined, these last emerged from their fastnesses and gradually pressed southwards, till, in 1211, Alfonso of Castile gained a crowning victory over the Mohammedans at Tolosa; and afterwards all Spain, except the powerful and brilliant kingdom of Granada, was under the government of Christian princes. After a long and glorious existence Granada finally surrendered to Ferdinand the Catholic, in 1491. All Spain was governed by Ferdinand and Isabella, and the Spanish race may be said to have reached its maturity—the product of the admixture of Iberian, Roman, Germanic, and Saracenic blood—bound together by the bond of recent conquest of the mixed Christian and Saracenic races. It was a wonderful race, worthy of the best of its ancestors, and during the sixteenth century was the most powerful nationality in Europe. Italy, Spain, France, and the Low Countries were overshadowed by its might, and our own England regarded it as little less than a manifestation of divine favour that its existence was spared and its honour preserved in its contest with the gigantic Spanish power. Cervantes, Calderon, Lope de Vega, and many other writers formed a dramatic literature hardly inferior to that of our own Elizabethan era. "Don Quixote" has been thought by many great thinkers, eminently by Coleridge, the greatest book that has ever been written. Murillo, and Velasquez and others, rendered the Spanish school of painters

only less illustrious than the Italian. Don Juan, the Prince of Parma, and other famous warriors raised her military reputation to the highest pitch, and the Spanish infantry continued to be esteemed the first in Europe till defeated and almost destroyed at Rocroi in 1643 by the great Condé, then only twenty-two years of age. Nor was its influence confined to Europe. Like other similar races, its population found its boundaries too narrow for its expansive force, and the whole of South America and that great and rich region now called Central America were peopled by Spanish colonists. Spain was truly unfortunate in its government; its blood was spilt and its treasures squandered in projects which could not add to the national power and prosperity, and after a period of extraordinary greatness came an almost equally sudden collapse. But long after the government had sunk into a state of almost bewildering weakness and apathy, the Spanish power remained great, and the character of the Spaniard was universally respected. A familiar instance of this is the representation of the Spaniards by Defoe, in his immortal tale of "Robinson Crusoe." My hearers will remember that Will Atkins and the other Englishmen are represented as strong, but mischievous, self-willed, and often wrong-headed men; but the Spaniards are grave, prudent, self-controlled, and sagacious. Though generally opposed to England in religion and policy, we must admit that, after reaching her climax, Spain has often shown great recuperative power. Under the first three Bourbon kings she made (1700 to 1783) rapid strides in national prosperity, and by nearly doubling her population proved that the elements of greatness had not yet died out. But the events of the French revolution and those which have succeeded have had generally a depressing influence on the Spanish Peninsula; and though a firm hand is still capable of uniting her scattered powers and restoring her to a respectable place among the nations of Europe, as we have seen in the case of the governments of O'Donnell and Prim, the conquering element has disappeared from the Spanish blood; and I fear we may have to say of Spain as was said of another decayed nationality by the British poet, whose eye was the most piercing and his pinion the strongest of all who have sung in our language since Milton—"Her glorious day is o'er, but not her years of shame."

That the English are a conquering race cannot be denied—an empire on which the sun never sets; a population of subject states and colonies exceeding that of any other empire in the world; a population at home which has doubled within the last fifty years, yet has borne an emigration sometimes numbering one thousand a day; a military history in some respects unrivalled; and a position in literature, science, and the arts, at least equal to that of any other nationality for the last three hundred years—these are all unmistakable signs of a dominant race, and of one which has not yet passed its climax. Then, as to our origin. I know that Mr. Freeman always speaks of the Angles and Saxons as our fathers; and no doubt the Teutonic is a very strong element in the English people and character. But when Mr. Freeman asks, rather

indignantly, "Are you a Welshman?" I answer, No; but neither am I a German. The Teutonic invaders of England did their work more thoroughly than their kinsfolk in France and Spain; but even by Mr. Freeman's own showing it was only in the south-east of England that the Britons were exterminated. The cruelties practised by the Visigoths and other German tribes in Spain were equalled or exceeded by Jutes, Angles, and Saxons in England; and the general history of the conquerors here is not unlike that of the Visigoths in Spain. There was a heptarchy constantly engaged in cruel and meaningless wars. Then followed an attempt at firm and stable government by able leaders, as Egbert, Alfred, Edward the Elder, and other kings of the race of Cerdic. But the same incapacity to mould subject races and to form a powerful united kingdom was evident in England, as in the conquered continental provinces. Hardly had Egbert united the different states of the heptarchy, when the Scandinavians, Danes, and Norse began to plunder the country, as the Angles and Saxons had done before; and though often defeated they settled in large numbers along the northern and eastern coasts. Lincolnshire was a Danish colony; and we find the Danes not only invading the southern coasts, but penetrating as far inland as Oxford and Northampton. Eventually the Danish dynasty displaced the Saxon, and from 1013 to 1042 Danish sovereigns sat on the English throne. This could not have happened unless at least a third of the country was in the hands of the Danes, not merely in the way of military occupation, but inhabited by Danes, or people of Danish descent. Now when it is remembered that the Celtic language is to this day spoken in Wales, and that it has died out in Cornwall only within a recent period, and that large districts in the west of England, Cumberland, Lancashire, Somerset, Devon, and all the country between the Severn and the present boundaries of Wales, are admitted by Mr. Freeman to have been only conquered, and that there the Britons were not exterminated, we have clearly—putting the Roman element aside—three races: the Briton, the Teuton, and the Scandinavian, all entering into the composition of the English people. But to complete their amalgamation there was an external force required, and that was supplied by the Norman conquest. That terrible event trod down all distinction of the subject races; a bridge was thrown across the Channel, by which Normans and Angevins flowed over in a continuous stream for a hundred and fifty years; and then in the reign of our first Edward began to appear the first traces of the new race, which is neither German, nor Dane, nor Welsh, but has its own individuality, is inferior to none of its predecessors, and when it has passed away will be always known as the great English race.

There are two subjects on which I should wish to say a very few words, and without which this lecture will hardly bring down my own ideas quite to the present time: one relates to America; the other to the new empire of Germany.

We hear a great deal of a new England on the other side of the

Atlantic, and of the connection in blood between us and the people of the United States. "Blood," we are told, "is thicker than water," and we fondly hope that our cousins, as we think them, must on the whole be actuated mainly by friendly feelings towards ourselves. The friendship of England and America is necessary to the world's progress ; but that friendship must be based on feelings of mutual respect and mutual interests, not on any sentimental idea of blood relationship. Observe, as one of the signs of the times, the answer given to Mr. Froude by the American press : "We do not care for the England of the past." They say in effect : "We have but little English blood in our veins." This is no doubt an exaggeration, but it is founded on truth. It would seem as if the English race loses muscle and fat, and gains length in America. The statistics of their army prove that the American-born recruits exceed in stature, but are inferior in weight, strength, and girth, to Irish, German, and English-born recruits. What is almost more serious is that the birth-rate is continually diminishing, the race is losing its *fecundity*, and the population is maintained and increased only by European immigration. The birth-rate of the foreign Americans in the United States is about 1 to 30 of the population ; of the native Americans about 1 to 40 ; while the birth-rate for England in the first half of 1872 was 1 to 28. But English blood is not that which flows most freely into America ; and if the English already settled there cannot (for 230 years) maintain their numbers and their strength, one of two things must happen—the American race will not survive the cessation of European immigration, or, if so, it will be by the formation of a new race formed of German, Irish-Celt, and Scandinavian, speaking probably the English language, but not really allied to England in blood or in sentiment. The failure of the English-descended American stock is put down to various causes : intemperance in eating, in drinking, smoking, the enormous consumption of patent medicines, the hasty manner of eating, the practice of eating an excess of fine-flour bread, the abuse of tea and coffee, the increased use of a rich, highly-seasoned and stimulating diet, and the constant employment of iced water. These it will be at once apparent may accompany but cannot cause a general degeneracy in physical development and national reproduction. The cause has to be sought deeper, and may arise from the incapacity of the English race to keep up its physique and its numbers on American soil—a very serious subject for contemplation, and one which may exercise no little influence on the fortunes and fates of the future.

One other point, and I have done. I have spoken of the Germans as a pure race, inhabiting fixed boundaries, which they overflowed only when a vacuum was caused, so to speak, by the decay of the Romans. Their emigrations were guided by no fixed policy ; they settled down in their new seats and lost all connection with the country from which they came ; plundering the subject races, and giving them in return very little except the benefit to be derived centuries

after by the admixture of a strong, vigorous, and muscular race. But it will be asked, Is this description compatible with the history of the last ten years during which Germany has certainly displayed all the characteristics of a conquering nation ; has engaged in great and eminently successful wars ; has conquered large territories which it has incorporated in its empire, careless of the approval or disapproval of the inhabitants ? This is all true, but it does not affect my theory. In past times the Germans extended their influence over many of the Slavonic tribes lying to their east. These acquired the German language ; some are now incorporated with the great Russian empire, others form part of the old Prussian monarchy. There a new mixed race has been forming for some time. It has at length taken the crown, as it has for long wielded the sword of Germany. Turning to our physical test of reproduction, we find that the birth-rate of the purely German states, as Hanover, is 1 to 32 ; of Bavaria, 1 to 29 ; but the birth-rate of Prussia is 1 to 26. As in the case of the Hellenes, the Romans, the Spanish Asturians, and the Normans, a little leaven leaveneth the whole mass. So we have in Prussia a new race with all the attributes of the old conquering races using the great German nationality for a lever, and entering on the career for the future, be it for good or for evil, of a conquering race.

It is only when I have brought this subject to a conclusion that I see how feebly and imperfectly I have been able to bring before you one of the most momentous questions of history. It is a subject on which I have thought much and long, and I fear, to the great annoyance of my friends, have also talked too much and too long. But if everything that concerns our race is interesting and worthy of thought, it cannot be denied that a surpassing interest must attach to all that belongs to those races which in the history of Europe have done the most to impress civilization, knowledge, laws, and arts on the rest of mankind.

DISCUSSION.

Mr. LEWIS thought a nation, speaking politically, might be a mixture of races, but races ultimately reverted to their original type. A nation consisting of a variety of races might, however, be more successful than a nation consisting only of one race, because the former would have the use in its public service of the best qualities of each of the races of which it was composed. Dr. King had said that the inhabitants of poor countries were not patriotic ; but the Welsh and the Highlanders were certainly exceptions to that rule.

The thanks of the meeting were voted to the authors.

ORDINARY MEETING,

*Held at 1, Adam Street, Adelphi, W.C., on Friday, 9th April, 1875,
at 7.30 p.m.,*

Dr. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

The routine business having been disposed of, a paper was read of which the following is an abstract :—

THE LOST TRIBES, WHERE ARE THEY?

By C. O. GROOM NAPIER, F.G.S., M.A.I.

FOLLOWING the line of argument adopted by Wilson, Carpenter, and other writers, the author sought to prove that the British Celts were Israelites who had come to Britain by sea with the Phœnicians, and that the Anglo-Saxons were descended from the Getæ and Massagetæ, who were the descendants of the ten tribes carried into captivity by the Assyrians. The Semites, or descendants of Shem, are, he said, to be distinguished by their oval heads and high noses, when pure, indicating great moral and intellectual power, tenderness for offspring, stability, love of place, and self-control, and, fitness, therefore, to control others. They cultivate large beards. The Japhetic or high-cheek-boned races have heads very wide, but flat behind, large at the base of the brain, narrow at the temple, and prominent at the jaw; small beards, which they generally pluck out; and violent, restless characters. China, Tartary, and Japan are their great strongholds, and America was first peopled by them. They have great executive power, but are wanting in solid wisdom and power of understanding first principles. The negro is a marked type of the children of Ham. Some of the Semitic races, although they have high and well-shaped heads, yet possess but a moderate quantity of brain. Such are the modern Persians, Armenians, and Arabs; but the Jews, and many of the inhabitants of Europe, have this finely-formed head of a large size, and are the only races capable of permanent progress, or of ruling the world with any show of justice or moderation. Ethnologists include Europeans, Jews, Persians, Arabs, Hindoos, and Affghans under the one head of Caucasian; and we may, therefore, justly suppose that all these have a common origin, but of all these the Jews and Europeans have the greatest affinity. The position of women in Israel and amongst the Anglo-Saxons was more honourable than in most other nations. Both nations were skilled in the use of the bow. By the Mosaic institutions and those of the Saxons the people were placed under rulers of thousands, hundreds, fifties, and tens. The Scandinavians presented themselves at the temple at Upsala three times yearly, answering to the feasts of Passover, Pentecost, and Tabernacles; they also, in common with Israel, reckoned their day from evening

to evening, and divided their time into weeks of seven days. At Upsala was a pavement of twelve stones where the election of kings took place, answering to the twelve tribes of Israel. The Lacedæmonians are identified as the brethren of the Jews in 1 Maccabees xii., and there is strong reason to believe that the Ionians are from the same stock. Their state consisted of twelve tribes, after the pattern of the Israelitish limited monarchy. The tribe of Dan early abode in ships, even in the days of the Judges, showing that they were a maritime people. The Fins, a Japhetic race, made the Cyclopean remains and stone implements of Europe, and the Phœnicians and first Israelite settlers introduced bronze. The lowest classes of English often present an admixture of the Japhetic type.

DISCUSSION.

MR. EDWARD HINE said that Biblical evidence must be received upon this question, as, without the Bible, nothing whatever could be ascertained concerning Jews or Israelites. The Bible, however, contained a variety of prophecies regarding Israel, all of which were being fulfilled by the British nation; and the identification of these two peoples as one did not depend upon a few proofs, but upon several hundreds. The skulls of the English and Jews were alike and oval, and differed from those of the Germans, which were round. He stated this on the authority of a hatter who had worked for the Prince of Wales. He thought the Saxon language Semitic rather than Aryan.

MR. W. C. FOOKS, as a Freemason, felt at liberty to state that there was nothing in Freemasonry that supported the identification.

THE REV. J. G. TIPPER said that tithes, which were an Israelitish institution, were in force among the pagan Saxons and Britons.

MR. LEWIS said there was nothing in the paper which had not already been put forward by Wilson, Carpenter, Hine, and others, and refuted by himself in a paper read before the Society eighteen months previously, to which he would refer the audience for further particulars.* The history, ethnology, and general science of the Bible were much more valuable to that Society than to any other; but no scientific society could deal with matters of prophecy, which belonged entirely to the domain of belief, and not to that of science or knowledge. The identification, however, was founded on a misconception of prophecy; the prophecies of grandeur, supremacy, and enlargement of Israel which had led to it referring to Israel when restored to their own country, and not while away from it. The classification of the peoples of the earth into three races to suit the three sons of Noah in the manner prescribed in Genesis made the

* Since published, with additional matter, price Sixpence, by the Author, at 4, St. Paul's Churchyard, E.C., under the title of "British Celts and Teutons Not the Lost Tribes."

Negroes, Egyptians, and Canaanites to be one race, and the Greeks, Tartars, and Celts also to be one race; but as the Celts, Canaanites, and Greeks were much more like each other than the Canaanites were like the Negroes, this classification was untenable, and he thought the best plan was to assume that the differences of race were due to some unrecorded miracle. The skulls of the British people were of various forms, that of the author, who was almost a typical Anglo-Saxon, being probably the roundest in the room. The Saxons sold their women, which the Israelites did not; and the Israelites were polygamists, which the Saxons were not. For a complete refutation of various trivial "identifications" brought forward, many of which were common to a number of peoples, he would refer to his pamphlet before alluded to.

Mr. CARMICHAEL, Dr. CARTER BLAKE, the Rev. Mr. HURST, Mr. SEAGER, and Mr. ISAAC also took part in the discussion, which was adjourned to the 14th May.

SPECIAL MEETING,

Held at 1, Adam Street, Adelphi, W.C., on Friday, 23rd April, 1875,

H. B. CHURCHILL, ESQ., VICE-PRESIDENT, IN THE CHAIR.

The routine business having been disposed of, the following papers were read:—

REMAINS OF ANCIENT CREMATION IN CAMBRIDGESHIRE.

By JOHN EKLESS.

DURING the progress of work being done in making an extension of the Great Eastern Railway, near the Fulbourn Station, a few weeks ago, a curious and ancient structure was unearthed, which undoubtedly was at some distant period used for the purpose of cremation. Unfortunately the ground above it and part of the structure itself had been removed before I visited the spot, so that I am not able to give the details so accurately as I could wish. About seven feet below the surface was found a circular vault of stone with a dome-shaped stone roof and a flue running round the bottom. This flue, which was very roughly constructed, contained both animal and vegetable carbon, also some portions of partly burnt reeds. The vault was full of vegetable remains in combination with carbonate of lime, which had evidently been subjected to heat sufficient to calcine them. The stratum on the top of the dome was a mass of two or three feet thick of pure carbonate of lime, pregnant with moisture and remaining in a

soft pulpy condition until exposed to the action of the atmosphere. Above this, again, was a mass of about the same thickness, similar in character to the contents of the vault, which proves to me the fact that the process of calcination had been often repeated, this mass representing matter thrown out of the vault to permit of its being replenished, and above this stratum and immediately below the surface mould was a quantity of human bones not acted upon by fire, having evidently been interred without ceremony. On a level with the low dome of the vault were found the remains of a small passage, which most likely formed part of the structure, but the workmen having demolished the connection which probably existed between it and the vault, I am unable to show the relationship. The impression left upon my mind from the above facts, and from the general appearance of the remains and their surroundings, is that human remains had been subjected to the action of quicklime to destroy the animal tissues, &c., of the body, and afterwards submitted to the action of fire. I am told that remains of a Roman camp are to be seen within a short distance from the spot. If this be true, the fact would go far to strengthen the opinion I am inclined to entertain that the cave is of Roman origin.

NOTE ON TUMULI AT THE SEVEN HILLS, LIVERMERE, IN THE COUNTY OF SUFFOLK.

(About ten miles from the borders of Cambridgeshire.)

By the Rev. J. RODWELL.

THE site of these seven tumuli, called from time immemorial the *Seven Hills*, each about six feet in height, with the exception of one larger tumulus, about fifteen feet high, was exactly midway between the ancient towns of Bury St. Edmund's and Thetford, close by what was in all probability a Roman road. One of these tumuli, the larger one above adverted to, is still standing, being fortunately enclosed in a copse and overgrown with trees. The other six were levelled and carried away for the sake of soil, to be used for agricultural purposes in adjacent fields, in or about 1835. In the centre of each of these tumuli, exactly upon the surface of the earth—i.e., on the same level as the neighbouring soil—were found remains of charred wood, but no other remains of any kind. The same was the case in a tumulus on Livermere Heath, of considerably larger dimensions, the demolition of which the writer of these remarks witnessed, as well as that of the *Seven Hills*, and the impression produced upon his mind at the time was that these mounds covered the ashes of proprietors or perhaps warriors of the olden time. One large tumulus, about twenty feet high, still remains on Froston Heath, in the adjacent parish of Froston, which was explored many years since by the proprietor, the late Mr. Capel Loft, but with what result the

writer does not remember. In the parish of Icklingham (nearer to Cambridgeshire) a large tumulus was taken down in 1830. The writer happened to be passing at the time, and discovered among some charred ashes a bronze celt, which he had the honour to present to Sir J. Lubbock.

CAVE-HUNTING IN SOUTHERN ITALY.

By C. H. E. CARMICHAEL, M.A., F.R.S.L.

FAR away from London smoke, under the blue Italian sky, and washed by the waves of the Ionian Sea, lies the cave to which I am going to draw your attention this evening. And, though it is not within my power to tell you the story of personal investigations of my own in this interesting and valuable branch of Archaic Anthropology, I have thought that it would be, in all probability, equally acceptable to friends of scientific research if I were to lay before you the results of the local labours of an Italian cave-hunter, Cavaliere Ulderigo Botti, member of the Italian Natural Science Society.* I have been confirmed in this view by finding that no mention is made of the cavern in the Leucadian promontory in Mr. Boyd Dawkins's valuable work on this subject, and by my own knowledge of the fact that the account from which I have drawn the particulars I am about to offer to your notice was only printed for private circulation, at the expense of the Municipality of the Province of Terra d'Otranto, in which the Grotta del Diavolo is situated. I think, therefore, that I may fairly claim to be bringing a new subject before you, and I hope that the comparison with the results obtained in other caves of the South of France and Belgium, to which the Leucadian cavern seems to bear the strongest analogy, may be considered not unworthy of your attention.

The first thing to be noticed in relation to the Grotta del Diavolo is its position, which has a very strong bearing on the antecedent probability of its having been inhabited in the earliest days of man's settlement in Italy. It lies, as I said in the outset, at the heel of the boot, to which the Italian peninsula has been so often compared, and forms the first likely landing-place of tribes drifting westward from Greece and the further east. In the days recorded by Pliny, when "*specus erant pro domibus*," this cave is one of the first that would present itself to the prehistoric "squatter." Two capes jut out into the sea at the extremity of the peninsula of Otranto, thus enclosing a crescent-shaped bay, which

* La Grotta del Diavolo, Stazione Preistorica del Capo di Leuca. Memoria del Cav. Avv. Ulderigo Botti, Consigliere alla Prefettura di Lecce, Membro della Società Italiana di Scienze Naturali. Bologna, Tip. Fava e Garagnani, 1871.

Cavaliere Botti identifies with Virgil's "portus ab eoo fluctu curvatus in arcum,"* though in fact, as he admits, it faces the south, not the east. The easternmost of these capes is the actual Leucadian promontory, the Iapygian or Salentine promontory of the Romans,† still preserving in its modern name, Capo di S. Maria di Leuca, the memory of the spring of fetid water said to have arisen there from the wounds of the giants expelled by Hercules from the Phlegræan plains. From this point, in fine weather, the view extends to the Acroceraunian Mountains in Albania. The westernmost cape is called Punta Ristola, and is entirely honeycombed by the caves forming the Grotta del Diavolo.

Geologically, the entire peninsula of Otranto, of which these capes form a part, belongs to the Upper Cretacean, a formation most favourable for caves, and hence very likely to contain early traces of man. The name Leuca, handed down to the modern cluster of houses forming the village of S. Maria di Leuca, is no doubt referable to the whiteness of the chalk cliffs,‡ as characteristic of the heel of Italy as of that side of "Perfidious Albion" which is washed by the "silver streak." The base of the Punta Ristola is composed of horizontal layers of chalk, while in the upper part great masses of breccia attest the violent action of natural causes in far-off geological periods. Between these lies a bank, or layer, of phosphoric chalk, in every respect, says Signor Botti, intermediate, uniting in itself both the palæontological and mineralogical characteristics alike of the calcareous strata on which it rests, and of the mass of breccia which lies above it, and to which it forms, as it were, a graduated introduction. The whole cavern may be divided into three parts, of which we are only concerned with the central one, where alone have traces of man been found. The extent of the entire cave is stated by Cavaliere Botti to be about 40 metres long, by 17 broad. Its direction is from north to east, with a dip of 10°. The immediate entrance to the cavern is through a vestibule or atrium, which leads to the central part, beyond which again there is another and lower vestibule, descending almost to the level of the sea, the entrance being about 16 metres above it.

In the former or higher vestibule the following discoveries were made. It was found to be paved with an earthy deposit (*deposito terroso*), from which Signor Botti extracted bones of birds and mammifera of existing and indubitably recent species, an almost entire human skeleton, and a copper medal of the time of Augustus. Unfortunately, it is not clear to me, from Signor Botti's language, to what type the skeleton found in this atrium belonged, and I am,

* *Æneid*, iii. 533.

† "Promontorium quod Acran Iapygian vocant, quo longissime in maria excurrit Italia." Pliny, *Nat. Hist.*, iii., c. 16.

‡ This origin is assigned to the name by De Ferrariis, or Galatheus, in his work "De situ Iapygiæ," from which Cav. Botti gives the following extract:—"In hoc situ erat parva urbecula, nunc diruta, quæ Leuca appellabatur de qua Lucanus 'parvæ mœnia Leucæ, seu segretaquæ litora Leucæ,' sic, ut puto, dicta ab albedine et nuditate scopulorum."

therefore, unable to say whether it is in any degree upon this discovery that he bases his view that the Grotta del Diavolo was inhabited by a brachycephalic and probably Turanian race. But I think it is not so, and I believe Signor Botti's conclusion is due rather to the remains of weapons and utensils of the palæolithic age, which he holds to be contemporary with what French archæologists call the Reindeer period, and which we shall shortly reach in our progress through this cave. I may mention that the lower atrium or vestibule was found to be impracticable for excavation; so that we may dismiss it entirely from our thoughts. Fixing our attention, therefore, upon the central portion, to which alone, says Signor Botti, importance attaches for prehistoric science, we find that it is described as divided into two parts longitudinally, *i.e.*, following the central axis of the cavern, taking the direction N. 10° W. to S. 10° E. Of these two parts the easternmost and deepest was filled with fragments and detritus of calcareous rock, heaped together in confusion, like the dry bed of a mountain torrent. The western part had a higher level, and exhibited an earthy deposit (*deposito terroso*), with a smooth surface, and an inclination of about 9° per cent.

Concerning the question of the origin of this cavern, Signor Botti sees no reason for considering it different from that of similar caves in a chalk formation, namely, the fracture and displacement of calcareous strata. The deposits of clay he would refer to the action of acids, while stalactitic and stalagmitic incrustations are the result of the infiltration of water laden with carbonic acid through the loosened chalk. But, though this view is professedly based upon Lyell and Capellini,* I am not quite able to follow out its deduction from the passage in Lyell's "Principles of Geology" quoted by Signor Botti. This, however, is rather a question for geologists than anthropologists.

The prehistoric remains in the Grotta del Diavolo were found in a series of five layers in the central part of the cavern; the first being the earthy deposit (*deposito terreno*) already alluded to; the second a stratum of brown earth (*terra bruna*); the third carboniferous earth (*terra carboniosa*); then red earth (*terra rossa*), with carboniferous layers intermixed; lastly, ashes and coal, mixed with brown earth and flints, sometimes set in earthy breccia. Of the three trenches dug through these layers, the second brought to light a specimen of true ossiferous breccia. In all these layers the bones, generally unbroken, and the fragments of terra-cotta were mixed up together, but lay chiefly in the central part of the mound, as though the early inhabitants of the cave had been wont to throw the remains of their food into the innermost depths of their dwelling-place, in a defiance of modern hygienic laws as complete as is re-

* Lyell, "Geology," ch. xlvii., p. 709:—"That fissures were first caused by earthquakes, and that these fissures became the chimneys or vents for the disengagements of gas generated below by volcanic heat." The reference to Capellini is, "Ricordi di un viaggio scientifico nell'America settentrionale" (Bologna, 1867), cap. 1, p. 3.

marked at the present day among the Esquimaux. The same characteristic has been observed in the Belgian caves described by M. Dupont.*

The third trench passed through somewhat different strata, and gave somewhat different results, inasmuch as the animal remains and traces of man's work were found right up to the wall of the cavern, which, indeed, was in this case the most productive part.

On the question how this mound or deposit was formed Signor Botti gives his opinion strongly against an alluvial origin, and in favour of its gradual formation by the early inhabitants of the cave in a manner analogous to that which produced the Danish "kjökkenmöddings." During his excavations Signor Botti obtained from this mound many pieces of ossiferous breccia, a number of bones, chiefly of mammifera, also valves of molluscs, bones showing traces of man's handicraft, flints worked for use as weapons or utensils, much terra-cotta, and minute fragments of coal. The breccia in this cave is found under conditions which Signor Botti considers analogous to that in the Grotto of Les Eyzies in France, the upper and lower strata being in both cases probably fragments of a previously united mass. In the upper part of the breccia, as in the upper part of the mound, the fictile remains found were of a relatively modern period; in the lower part were imbedded the most primitive utensils. Among the bones found, either scattered about in the mound or in the breccia, were many mandibles and a great quantity of teeth. The bones were generally broken, and split for the extraction of the marrow. They belong chiefly to the stag, the ox, the goat, the sheep, and the pig, "*Sus Palustris*" being represented as well as the common pig; while the dog, the wolf, the horse, and the hare are also present. The bear has left two canine teeth, and the hyæna two molars; one tooth alone seems to belong to the genus *Felis*.

A few vertebræ and other bones represent the ichthyology of our cave; among reptiles, *Testudo Græca* alone figures. Of man himself the remains found consisted chiefly of fragments of ribs, the head of a scapula, a dorsal vertebra, and six "falangi." They were broken and mixed up with the other bones, and from this Signor Botti conceives that there is a probability of the early dwellers in the Leucadian caves having practised anthropophagy. Taking everything into consideration, it may be admitted that there is likelihood in this conjecture; but it is quite possible that, if we could acquire more undisputed facts about the habits of the cave-dwellers in Europe, we might be able to account differently for the circumstances that seem to point in this direction. There is nothing gained to the healthy progress of a true science of man by either assuming or denying a supposed practice. The question is simply one of fact, in any given instance, and it is not possible, or rather perhaps I should say it seems to me not scientific, to argue from even the proved

* Dupont, E., "Étude sur l'Ethnographie de l'homme de l'âge du Renne dans les cavernes de la vallée de la Lesse." Brussels, 1868, p. 71.

practice of one set of cave-dwellers to that of another. On this very point Mr. Boyd Dawkins dismisses a supposed case of anthropophagy which the Abate Chierici thought he had discovered in the Emilian province, where he has carried on researches for years with untiring devotion. It is worthy of note that in this instance we have an English man of science putting aside the speculations of an Italian priest. If any of us have been disposed to treat as questions of orthodoxy *v.* heterodoxy this or any other question of fact, arising in anthropological studies, we shall do well to remember the disappearance of the Abate Chierici's cannibals before Mr. Boyd Dawkins' judicial impartiality, and be more charitable in our future judgments.

Among the bones fashioned by man's hand for some purpose, probably of domestic use, occur two tusks of the wild boar, seemingly worked by flints, and Signor Botti notes among the flint remains some that might have made the sort of marks found on these tusks. Two bone bodkins (*punteruoli*), of a conical shape, with broad bases, in one instance perforated, deserve mention, as Signor Botti states that they resemble some that were discovered in the Lake of Neuchâtel, at the stations of St. Aubin and Concise. One fragment of bone, long, truncated, and polished on its broken side, is remarkable for a transverse piercement, and might have been hung round the neck, either as an ornament or perhaps an amulet. It would be very interesting if we could arrive at the conclusion that the amulet of a cave-dweller had been here really recovered.

Among the flints in the Grotta del Diavolo the dominant shape is that of the knife, and the objects themselves bear considerable resemblance to the remains found by Capellini in the valley of the Vibrata, as well as to those described by Nicolucci as found in Southern Italy, and to those in the lake-dwellings of Lombardy. In regard to the flints described by Nicolucci, it may be worth bearing in mind, as Signor Botti urges, that some of them which most resemble those of the Leucadian promontory are indeed very near neighbours topographically, having been found in the province of Bari, which is conterminous with Terra d'Otranto. It is not easy to imagine what was the use to which all these instruments were put. De Mortillet has suggested that they may have been votive offerings; but here, again, we are met with the old difficulty of want of facts to support the theory. We should have advanced some way towards constructing a scheme of the religion of the cave-dwellers if we could accept the supposed amulet and the supposed votive offerings as proven. But I am afraid that I—at least, upon the present evidence—must give as my verdict, “not proven.”

From the presence among the flint instruments of various nuclei, from which others were struck off, and of splinters such as would be thus produced, Signor Botti is inclined to think that the Leucadian cave-dwellers may have had a workshop of flints for their own use in their own home. A very large establishment of this kind in the valley of the Vibrata has been described by Professor

Capellini, of Bologna, in a pamphlet on the Stone Age in that district. This Leucadian workshop, if such it was, of course had much smaller dimensions. It is worthy of remark, as having a direct bearing on the question of the intercourse that prevailed between different groups of men in the remote ages, when "specus erant pro domibus," that both the flint nuclei and the obsidian knives found in the Leucadian cave are foreign to the geological formation not only of Terra d'Otranto, but also of the neighbouring provinces of Apulia and Basilicata, and that Signor Nicolucci says* that the obsidian must have been brought from the Æolian Islands.

The fictile remains in terra-cotta found in the Grotta del Diavolo appear to belong mostly to the Etruscan and Roman periods; they do not, therefore, as Signor Botti observes, belong to prehistoric archæology. But it is otherwise, he believes, with some fragments of vases preserved in the lower strata of the earthy mound (*deposito terreno*), and in the lower part of the ossiferous breccia. To these, on account of their remote position, their association with prehistoric remains, and the rudeness of their workmanship, Signor Botti thinks himself justified in assigning a place among the remains of the industry of primitive man, and they have some marks which French archæologists are wont to attribute to the works of the Reindeer period. One vase only was found entire; the rest were all in fragments, consisting largely of massive handles. The entire vase is a "tazza" of hemispherical shape, and roughly kneaded by the fingers, of which Botti thinks he can distinguish the marks. I must not omit to mention three whorls of terra-cotta, two circular and one approaching to the spherical.

With these terra-cotta antiquities, which carry us back once more into the tempting region of speculation on the progress made in the plastic art by primitive man, I must close my enumeration of the objects of anthropological interest discovered in the Grotta del Diavolo. I have sometimes ventured to differ from its learned and zealous explorer, and I may not always have set his work before you in so clear a light as I could have wished; but I hope that, whether concurring in Signor Botti's views or not, we shall all be able to agree in feeling grateful to Professor Capellini for suggesting the exploration of the Leucadian cave, and to Cavaliere Botti for the heartiness with which he carried out the suggestion, and that, at any rate, we shall not regret the time we have devoted this evening to cave-hunting in Southern Italy.

* "Sopra altre armi ed utensili in pietra rinvenuti nell'Italia Meridionale," Naples, 1867, p. 4.

GALLO-HELVETIC INTERMENTS ON THE UETLIBERG,
NEAR ZURICH.

By C. H. E. CARMICHAEL, M.A., F.R.S.L.

WHILE in Switzerland, during the autumn of last year, I made a note of some recent discoveries of graves containing bronze and iron implements, which it may be useful to place on record in the transactions of the London Anthropological Society.

My authority for the following account is a local journal, the *Neue Zürcher Zeitung*, under date of the 27th July, 1874.

The Uetliberg is a hill about three miles from Zurich, a very favourite resort of both the townsfolk and foreign visitors, on account of the air and the panoramic view of the lake and distant Alps to be had from its summit. Like other Swiss heights, it is soon about to be linked with the lower world by a railway, and it is in the course of the cuttings necessary for that object, and in preparing a site for a station on the Uetliberg, that these discoveries have been made.

The first grave that was opened contained the well-preserved skeleton of a tall, powerful man. He wore a bronze necklace* (halsring), and there were found near him fragments of red and black pottery, and clay mixed with little pebbles. An iron knife (messer) found in this grave appears to have been lost.

Another grave is described as presenting the appearance of having been previously opened and partly destroyed. It also contained a skeleton, which lay east and west, the head being supported by a stone. In this grave no weapons or implements were found, which may be easily accounted for by its having already been ransacked at some unknown date.

Besides the above, the following further discoveries of ornaments and weapons on the same spot are recorded by the *Zürcher Zeitung*:—Six bronze armlets and anklets (arm-und bein-ringe), some entire and polished, some strung together on a fragment of wire, and adorned with ornamental carving (mit eingeritzten ornamenten versehen), two bronze fibulæ of rare shape, of which it is remarked that a similar fibula has lately been dug up at Arbedo, Canton Ticino, also two bronze rings, and two fibulæ of an ordinary kind, and the blade of an iron sword, which was identical in shape with those found at Tiefenau, near Berne, and also in the trenches (laufgräben) of Alesia; lastly, an iron spear-head and bones of animals.

I presume that the Alesia referred to in connection with the iron sword-blade is the great hill-fort of Cæsar's campaigns in Southern Gaul, but which of the disputed sites has been adopted by the

* I have not ventured to use the word torque, though it is almost suggested as the equivalent of "halsring" by the theory broached in a later part of this account, that the graves here described were those of the "noble dead" of a people of Gallo-Helvetic blood.

Swiss archæologists I am not at present able to say. The point of the reference, however, lies in identity with swords of known Gallic workmanship, rather than with Cæsar's topography. The date assigned to the remains I have thus described is the Gallo-Helvetic period, which I take to be, broadly speaking, synchronous with the Roman conquests under Cæsar in Gaul and Britain.

It should be noted, as giving us further insight into the importance of the Uetliberg in ancient times, that both a refuge on the summit and a colony (*Niederlassung*) on the slope of the hill have been discovered.* The Zurich journal, from which I take these facts, connects the recently opened graves with the colony, which is on the slope, near Ringlikon, assuming that its inhabitants betook themselves to the refuge in war-time, and buried their "noble dead" on the remarkable height where these interments were found, at the north-west corner of the so-called "Allmend," on the side opposite Reppischthal. Accepting this theory of the three classes of ancient sites on the Uetliberg—at least until further investigation—I am led to the conclusion that we have opened up to us in these excavations an important source of fresh information of the most authentic character respecting the stature, habits, and civilization of the tribes that inhabited the north and centre of Switzerland during the period of that great contest between Rome and the kindred Gallic people among the extinct volcanoes of Auvergne which has given Alesia so notable a place in history.

I cannot conclude this brief notice without expressing the hope that the valuable discoveries made in these and other such excavations will be duly cared for, and preserved in the nearest local museum, to add to our knowledge of the Bronze and Iron Ages in Switzerland.

After a discussion, in which Dr. CARTER BLAKE, Mr. JONES, Mr. BUCKLEY, and Mr. LEWIS took part, a paper was read, of which the following is an abstract:—

ANTHROPOLOGICAL NOTES FROM ASSYRIAN INSCRIPTIONS.

By A. L. LEWIS, Hon. Sec., L.A.S.

THE author, after dwelling on the excellent anthropological work performed by the Society of Biblical Archæology, from the publications of which his materials were drawn, made some remarks on the general anthropological and chronological bearings of the discoveries in Chaldea, and proceeded as follows:—

Our learned Vice-President, Dr. Inman, and other writers have shown us the strongest reason for believing that the worship of the

* I should also add that from Ringlikon to the Uetliberg there is an old military road (*Burgweg*), which was probably used in Celtic times, and on which have been found many horse-shoes, but not, according to present accounts, of any antiquity.—*Zürcher Zeitung*.

Virgin is a mere continuation of the worship of Ashtaroth, the Ishtar of the Assyrian inscriptions; and that our priestly vestments and mitres and our religious emblems are mostly derived from the various pagan systems of antiquity; and there seems to be much reason for believing that some of our doctrines and practices also come from the same sources. In particular, it seems to me almost certain that the Assyrians had something very like the consecrated wafer which Romanists believe to be the actual body of God. This mysterious object is called in the Semitic tablets "Mamit," and in the Accadian language, "Nambaru" and "Sakba;" and the following lines, as translated by Mr. Talbot, might be used without alteration by any Romanist in speaking of the wafer:—

"Salvation from the midst of the heavenly abyss descended.
Mamitu from the midst of heaven descended."

And again—

"Mamit, Mamit, treasure which passeth not away,
Treasure of the gods which departeth not,
Treasure of heaven and earth, which shall not be removed,
The one God who never fails;
God and man are unable to explain it."

While another hymn is devoted to impressing upon the worshippers the duty of saving the Mamit before all other things in case of a temple taking fire. Another tablet says: "Take a white cloth, in it place the Mamit in the sick man's right hand, and take a black cloth, wrap it round his left hand; then all the evil spirits (naming them) and the sins which he has committed shall quit their hold of him, and shall never return." This shows that the Mamit, like the wafer, possessed particular virtue, was a small object, and was carried to the chambers of the dying.

Again, we hear that Cara-Indas, king of Carduniyas, and Assurbil-nisi-su, king of Assyria, made a covenant and a "mamitu," which is translated "pledge," reminding us, as does the use of the word in other places, of the frequency with which the wafer was used to swear by in the middle ages, and of the derivation of our word sacrament from *sacramentum*, an oath. In short, we gather from the preceding instances, which might be supported by many others, that the Mamit was supposed to be descended from heaven, a mystery, a god which never failed, more precious than any earthly object, yet so small as to be placed in a sick man's hand and to be taken to him to drive out evil spirits; that it was, in fact, supposed to be all that the Romish "Host" is supposed to be, and that the simple memorial of bread and wine, instituted in the upper chamber at Jerusalem, is not: and, when we consider further how much of modern ritual, vestment, and emblem comes to us from pagan sources, we shall not, I think, be altogether unjustified in drawing the inference that, if the "Mamit" and the "Host" are not absolutely the same, there is no practical difference between them. It is, however, necessary to observe that the gentlemen who have furnished me with the materials upon which to base this conclusion do not

seem, from their papers, to have been led to this or to any conclusion whatever upon the subject themselves.

The Assyrians believed in the inherent and natural immortality of all men, a doctrine which has descended to us from our Celtic forefathers, but which cannot be proved from the Old or New Testaments.

The author then suggested a connection between the Annunaci of Assyrian mythology and the Cwm Annwn of the British Kymry, and between the Assyrian god H^éa (possibly pronounced Hu or Ho) and the Hu Gadarn of the Kymry, and said that the Phœnicians had probably been the link of connection between the two peoples. The civilization and mythology of the Semitic Assyrians of Nineveh appeared, however, to have been derived from some earlier Turanian inhabitants of Babylon.

DISCUSSION.

Mr. BUCKLEY, as a Roman Catholic, had had his tenderest feelings wounded by the paper just read. The use of bread was common to a variety of religions.

Mr. CARMICHAEL concurred in regretting the theological tone of the paper.

Dr. CARTER BLAKE objected to the statement that the worship of the Virgin had been proved to be derived from that of Ishtar, and to the identification of the Mamit with the Host. Bread was worshipped in Central America. He doubted, also, whether the early Babylonians were really of Turanian origin.

Mr. RICHMOND HODGES, as an Assyrian scholar and a Fellow of the Biblical Archæological Society, felt very much indebted to Mr. Lewis for the very interesting paper he had read. While deeply regretting that theological differences should have been dragged into the discussion, Mr. Hodges might assure both parties that the word MAMITU, or MAMIT, was one of those concerning the meaning of which Assyrian scholars were by no means agreed. In fact, it could not be determined what it meant. All we know about it is that it indicates something peculiarly sacred, but of what kind we are unable to say. It is derived, apparently, from the Semitic root (YAMA) יָמַע, to swear; and, from the context in which the noun is found, we can gather that it denotes what was regarded as very sacred, and that is really all we know about it. As to Dr. Carter Blake's criticism of the Rev. A. H. Sayce's remarks on Babylon, Mr. Hodges would observe that Babylon existed as a city long before it was called Babylon. It was a Turanian city, and besides the religious or mystical names of SU-ANNA, or EMUK-ANU, it bore the Accad name of DIN-TIR.KI and KA-DIMIRRA, names signifying respectively "Gate of Life," and "Gate of God;" both names well suited to a religious city. Upon its conquest by the Semitic race, the Accad name,

KA-DIMIRRA, was translated into the Semitic BAB-ILU, "Gate of God," whence the Hebrew *Babel* and our Babylon. It was, therefore, a Kalmuc or Tartar city long before it became a Semitic one. There was no connection whatever between the name Babel and the so-called confusion of tongues, which would require to be BILBOOL, not BABEL. It is, therefore, a mere Jewish gloss to connect the name of Babylon with the confusion of tongues. With reference to the Cimmerii, or Kimmerii, and their contact with the Assyrians, Mr. Hodges felt that we need go no farther than an Assyrian inscription of Asurbanipal to prove that, at any rate, some 650 years B.C. they came in contact. In "Records of the Past," vol. i., pp. 69, 70, we read of the Kimmerii as wasting or destroying the subjects of Gyges, the king of Lydia, and of two of their chiefs being sent, bound in fetters of iron, with numerous presents for Asurbanipal, to the court of that monarch. We read in section 35 that "the Kimmerii, whom by the glory of my name (says Asurbanipal) he (Gyges) had trodden under him, afterwards conquered and swept the whole of his country." Of course, by the Kimmerii one should, I think, understand here a Celtic people, if not the Cwmry or Welsh. The Assyrian form of the name is GI-MIR-RAI. It occurs, also, in the inscriptions of Esar-Haddon, and in the Behistun inscription, in which latter the Persian text has SAKA (query, Saxons or Scythians?).

Mr. LEWIS, in reply, said that, if he had dealt with theological subjects, he had endeavoured to do so in a purely anthropological manner. As Mr. Hodges had remarked, the question was not one of bread, as no one knew at present what the Mamit was made of, but of attributes real or imaginary.

The thanks of the meeting were voted to the authors.

ORDINARY MEETING,

Held at 1, Adam Street, Adelphi, W.C., on Friday, 14th May, 1875,

Dr. R. S. CHARNOCK, F.S.A., PRESIDENT, IN THE CHAIR.

THE routine business having been disposed of, the discussion on Mr. Groom Napier's paper, read on 9th April, was resumed by

Mr. CHURCHILL, who gave several instances of misinterpretation of prophecy, which indeed was seldom, if ever, correctly interpreted until after its fulfilment.

The Rev. A. B. GRIMALDI said Sharon Turner traced the Anglo-Saxons to Media about the time that the Israelites were placed there. Josephus showed that the ten tribes had never returned to Palestine.

Mr. F. J. SPENCER said Warner and other Irish historians had proved that the tribe of Dan had escaped from Palestine at the time of the Assyrian captivity, and landed in Spain and Ireland,

and the name of Dan was to be found all over the north of Ireland. One of the ancient Irish laws was that a brother was bound to marry his brother's widow to raise up children to him.

Mr. SAVILE TUCKER thought it was for the opponents of the "identification" to prove its impossibility; he saw nothing impossible in it himself, but much in its favour.

Professor LEITNER showed that the Celtic was an Aryan and not a Semitic language, and had nothing in common with Hebrew.

The Rev. Canon TITCOMB said that to suppose Hebrew had turned into Anglo-Saxon was absurd, but the Israelites might have lost their language and taken up another. The great difficulty was the physiological difficulty, but the Huns came from north-eastern Asia in the ninth century with a type of face perfectly distinct from that of their present descendants, and the Turks also had lost their Mongolian aspect, and the Israelites might have done the same.

The PRESIDENT, after pointing out a number of minor differences between the Jews and the English, said there was but little Hebrew in the English language, and that little came through other languages. The Celtic languages have not a real but only an apparent affinity with the Hebrew.

Mr. LEWIS said Mr. Grimaldi had quoted Josephus, but Josephus said the ten tribes were beyond the Euphrates at the very time the Identifiers said they were in Europe. Benjamin of Tudela also said they were in Asia, and not in Britain, in the time of the Plantagenets. Mr. Spencer had said that Warner and others had proved that the tribe of Dan had come to Ireland, but had omitted to mention the facts on which these "historians" relied, and which, indeed, had no existence. Mr. Tucker, in asking them to prove a negative, was making an unusual demand, but one which was as nearly as possible complied with. Canon Titcomb seemed to think that the Israelites had so far mixed and intermarried with other races as to lose every distinctive characteristic, in which case they would, to all intents and purposes, have ceased to be Israelites at all. Some Israelites in the Crimea had maintained their religion for seven centuries after the captivity, as was shown by their gravestones.

After some remarks from Dr. KAINES and Dr. CARTER BLAKE (in opposition to the paper), the Rev. CURWEN BROWNE, the Rev. J. G. TIPPER, and M. FRANCESQUE MICHEL,

Mr. GROOM NAPIER said, in reply to Mr. Lewis, who had spoken of him as a typical Anglo-Saxon, that his grandfather and uncle Napier were of a marked Jewish type. In reply to the President and Professor Leitner, he gave some instances of English words which he derived from the Hebrew. He thought that no logical argument had been advanced against his paper, and that the Israelitish origin of the English must therefore be taken to be proved.

SPECIAL MEETING,

Held at 1, Adam Street, Adelphi, W.C., on Friday, May 28th, 1875,

H. B. CHURCHILL, ESQ., VICE-PRESIDENT, IN THE CHAIR.

The routine business having been disposed of, the following paper was read :—

THE AKKAS.

By C. H. E. CARMICHAEL, M.A., F.R.S.L.

FLOATING down the stream of time, as a legend in which the possible kernel of fact could not always be distinguished from the probable outer covering of fiction, has come the rumour of the existence in Equatorial Africa of a race of diminutive men, so small that the ancients, who first vouched for their existence, called them Pygmies, *i.e.*, men a span high. "Homer knew little of Egypt, yet he had informants who told him of what lay beyond it. Most strange it is," says Mr. Gladstone,* "to find that his account of the Pugmaioi, or Pigmies (Iliad, iii. 6), so long regarded as pure fable, has been found, according to recent travellers, to be founded in fact." Yet this was written before the appearance of Schweinfurth's story of his travels in the heart of Africa, and was based only on the news brought home from travels in Eastern Equatorial Africa by Drs. Krapf and Rebmann, who obtained personal knowledge of a tribe called the Doko, living at about 3° north latitude.

Schweinfurth's travels, and even more those of an Italian, Miani, who unhappily died in Central Africa, have added so materially to our stock of knowledge on this subject, that I have been induced to think that a brief report of the chief facts at present known to us in connection with the Akkas might not be unacceptable at one of our special meetings.

Homer, in the passage referred to by Mr. Gladstone, connects the Pygmies with the Cranes :—

"To warmer seas the cranes embodied fly,
With noise, and order, through the midway sky;
To pygmy nations wounds and death they bring,
And all the war descends upon the wing."

Pope's Homer, Il., iii. 6-10.

Whither went the fatal cranes of Ibycus, when they had done their appointed task by forcing confession from the craven murderer? Perchance southward to the Pygmyland. This may seem a fanciful view without warrant from Schiller's words. But turn we to classic prose, and we shall find most categorical assertions of the existence

* "Juventus Mundi," p. 127, and note. I may remark that the note gives a wrong reference to the *Revue des Deux Mondes* on the Pygmies. It should read Oct. 1856, not 1855.

of a Pygmy race. The "father of history himself," Herodotus (bk. ii., ch. 32), makes an incidental but extremely definite statement on the subject. After the Nasamonians had crossed the Libyan deserts, they at length, he says, saw some trees growing on a plain, and having approached, they began to gather the fruit that grew on the trees, and while they were gathering it some *diminutive men, less than men of middle stature*, came up and seized them, and carried them away.

Equally unequivocal is Aristotle's assertion in his "History of Animals" (bk. viii., ch. 2): "The cranes fly to the lakes above Egypt, from which flows the Nile; *there dwell the Pygmies, and this is no fable*, but the pure truth; there, just as we are told, do men and horses of diminutive size dwell in caves."

The Stagirite, it will be observed, is very earnest in deprecating the incredulousness which he seems to have thought might greet his statement. We may be sure that he at least fully believed he had excellent grounds for making it.

It is possible that the cranes may have got mixed up with the story through Egyptian symbolism, and that their battles with the Pygmies may be nothing more than emblematic representations of their battling with the falling waters of the Nile stream, as Schweinfurth tells us Pauer has attempted to prove. Whether this be so or not, the fact remains that several centuries before the Christian era—as far back, in fact, as the time of the Troica—the Greeks were aware of the existence of a dwarf race in Central Africa. Schweinfurth saw and measured several members of this race, "the living embodiments," as he enthusiastically observes, "of the myths of some thousand years." Unfortunately he appears to have lost many of his notes and drawings on his journey home, and to this cause I ascribe a certain vagueness and want of precision in several of his details, which is much to be regretted, as it impairs the otherwise very considerable value of his investigations. Sometimes, moreover, the English of Schweinfurth's book does not seem to give an adequate rendering of the original, as I shall point out more especially in one or two passages to which I shall ask your attention. I must confess to a feeling of disappointment when a scientific traveller tells us of a race of dwarfs that "he never saw any instance in which their height *materially* exceeded 4 ft. 10 in.," and, again, that "he measured six full-grown individuals, none of whom much exceeded 4 ft. 10 in. in height." Under the circumstances, I should particularly like to know what is Dr. Schweinfurth's estimate of material excess of any given measurement. Till we know that I hardly see what is the precise value to be set upon his measurements, though I suppose this apparent ambiguity is really the result of his conscientious desire not to make any over-statement in the absence of his definite data, which, as he tells us, perished in the fire. It must be noted, on the other hand, that the average height of the Bushmen of Southern Africa, to whom Schweinfurth considers that the Akkas bear a very striking resemblance, is given by Fritsch as 1 mètre 44 centimètres, *i.e.*, about

4 ft. 8½ in., and that we seem to have three distinct statements of measurements of Akkas by Schweinfurth in the following cases:—Nsewue, whom he carried off with him, but who unfortunately died on the way, and two others, whose portraits are given in Schweinfurth's book. Of Nsewue we are told that he did not grow at all during the last ten months of his life, and it is therefore presumed, seemingly on good grounds, that his height would never have exceeded 4 ft. 7 in., which was his measurement at the time of death. The two whose portraits are given are stated to have been of the height of 4 ft. 1 in. and 4 ft. 4 in., respectively.

Krapf's Dokos are spoken of in the article in the *Revue des Deux Mondes*, quoted by Mr. Gladstone, as “hauts d'un mètre à un mètre trente centimètres,” which gives them very much the Bushman average. These Eastern Equatorial Pygmies are currently spoken of as resembling in their height boys of ten years of age.* Perhaps we may fairly say that our present limited knowledge of the Akkas and other dwarf races warrants us in giving them a height varying from 4 ft. 1 in. to 4 ft. 10 in., but with this important qualification, that Schweinfurth says he always ascertained that the tallest Akkas descended from intermarriages with the Monbuttoo, among whom an entire colony of them reside, to which branch of the race, it may be observed, Nsewue belonged. One or two points in Schweinfurth's description of the Akkas may be worth noting, as bearing upon the question of their racial affinities. Their complexion and hair he thus describes, in far from complimentary strains: “the skin of the Akkas is of a dull brown tint, *something of the colour of partially-roasted coffee!*” He refers to Nos. 7 and 8 in the table of skin-tints, in plate 49 of Fritsch (which numbers, it should be remarked, represent the complexion of a *Bushman*) as corresponding closely with the Akka tint. As to their hair, Schweinfurth relates a sad consequence of its being short as well as woolly, viz., that the Akka are unable to form a chignon like their neighbours, the Monbuttoo! Furthermore, he says that their hair corresponds with their complexion, and “in texture may best be compared with the waste tow from old cordage!”

* Krapf himself, speaking of the Dokos (“Missionary Travels in Eastern Africa,” London, 1860, pp. 50-54), from the report of a native called Dilbo, says that they are no bigger than boys of ten years old, *i.e.*, about 4 ft. high; that they have a dark olive-coloured complexion, do not hunt or till the ground, but live solely on fruits, roots, mice, serpents, ants, honey, and the like, climbing trees and gathering fruit like monkeys. They have thick protruding lips, flat noses, and small eyes; the hair is not woolly, and is worn by the women over the shoulders. The nails of the hands and feet are allowed to grow like the talons of vultures, and are used in digging for ants and in tearing to pieces the serpents, which they devour raw, for they are unacquainted with fire. It must be borne in mind that this is only a secondhand account, and Krapf thought some of it fabulous. Krapf heard of a Pygmy race not only in Shoa, but also in Ukambani, 2° S., and in Barava, 1½° N. of the Equator. The Dokos are placed by Ravenstein's map in lat. 5° N., long 38° 39' E. The Kymos, a supposed dwarf race of Madagascar, seem to be disposed of by a writer in the *Magasin Pittoresque*, Paris, 1873, p. 51, *et seqq.*

The shape of their shoulders Schweinfurth considers to be different from that of other Negroes, in a way that he thinks may be accounted for by the unusual scope required for the action of their shoulder-blades, and their walk is also different. "Unlike other Africans," says Schweinfurth, "who walk with their feet straight, the Akka turn them *somewhat inward*. I hardly know," he continues, "how to describe their waddling; every step they take is accompanied by a lurch that seems to affect all their limbs alike, and Nsewue could never manage to carry a full dish for any distance without spilling at least a portion of its contents. Of all their members, their hands are undoubtedly the best formed. . . . Nothing about my poor little favourite ever excited my admiration to the same degree as his pretty little hands."

Of their language Schweinfurth does not seem to have got much notion, and that little is at variance with the accounts given by the Italians, who have studied the subject with two living examples before them. He appears to have been chiefly struck with the "inarticulateness of the pronunciation," whereas the Italian writers speak of it as soft and musical. Nsewue seems not to have been a very intelligent specimen of the race; for Schweinfurth says that during the year and a half that he was domesticated with him this Akka was unable to learn sufficient Arabic to make himself understood, and in that respect was very different from the other natives. The two who are now in Italy are, on the contrary, spoken of as decidedly quick and intelligent, and learning rapidly the pronunciation of Italian. On some curious points mentioned by the Italian writers in connection with the Akkas Schweinfurth's book throws no light. Either he never applied the same tests or there are differences within the race for which we have not yet a sufficiently close knowledge to be able satisfactorily to account.

It is time that I should turn from Schweinfurth's description, which I have purposely quoted at some length, to that given of the two Akkas who reached Europe, and have now been among us for about a year. I had the pleasure of meeting in Italy, at the Petrarch Festival in Padua, in July, 1874, Count Miniscalchi-Erizzo, one of the Vice-Presidents of the Italian Geographical Society, and I had hoped to be able to obtain some photographs of the Akkas, through his kindness, in time for exhibition this evening. At the time when I met Count Miniscalchi-Erizzo, the Akkas were staying at one of his country-seats in Friuli. The interest excited by their arrival in Italy was very great. I have now before me extracts which I made from some Italian papers showing how wide-spread was this interest. It extended from the Royal family to the *habitués* of the Roman theatres, which is as much as to say that it reached all classes. The King and the members of the Royal family, the senators of the kingdom, and the deputies of the National Parliament, all seem to have vied with each other in their eagerness to see these "living embodiments of the myths of some thousand years." Count Miniscalchi-Erizzo and Professor Panceri presented them to the

King, together with Hussein Hairal, the Egyptian sergeant who took charge of them on the death of Signor Miani, and brought them safely down to Egypt, and so on to Italy.

"Miani died," says the Roman journal, *L'Opinione* (1st June, 1874), "in Monbutta," which I take to be Schweinfurth's Monbuttoo country. Hussein relates, we are told, many curious particulars of his travels. He gives the Niam-Niam name of the Akka country as "Tike-Tike-Nekka," while Schweinfurth gives "Tikki-Tikki" as the Niam-Niam designation of the Akkas.

The writer in the *Opinione* supposes the elder Akka to be about twelve or thirteen years old, and says that he shows a lively intelligence. The younger, whom he supposes to be about nine years old, appears to be more taciturn. I do not know that we can attach much weight to the conjectures thus hazarded as to the respective ages of the two Akkas, and I merely give them "quantum valeant."

The *Opinione* says they are of the *Abyssinian* colour, which I think would answer pretty well to Schweinfurth's dull brown; the elder has curly black hair (*capelli neri crespi*), while the younger, it is worth noting, has almost flaxen hair (*capelli quasi biondi*). I think Schweinfurth describes other cases of fair hair, and even fair complexion, among some of the Central African tribes, if not among the Akkas.*

The manners of the two Pygmies seem to be quite fit for court circles. They are described as receiving with vivacity and gracefulness the presents with which they were loaded by the princes. As an instance of their intelligence, I may remark that they recognised a photograph of the Princess Margherita, and, as a touch of nature, that the younger one was much pleased with a toy-mouse given him by the Princess.

Of the language of the Akkas the *Opinione* says that, so far as has at present been gathered, it seems to be soft and easily pronounced. "Memba" means yes, and "Ganda" no, in their tongue.

From another paper of somewhat later date, *L'Italie* (Rome, 19th July, 1874), I gather some further particulars which it may be of interest to lay before you.

"Although the Akkas eat ordinary food—meat, bread, rice, butter, and milk—they have a special predilection for fruit. *Salt is to them a dainty*; they eat it as children do sugar, while they refuse sweetmeats, and particularly chocolate. They care but little for wine; on the other hand, they have quite a passion for coffee. One curious observation has been made, viz., that *they consider water a precious object, that must be used with great care*. Sig. De Sanctis relates that he one day saw the smaller of the two Akkas drinking when he thought he

* Herr Marno, the Austro-Hungarian member of Col. Gordon's Nile Expedition, is stated by the *Academy*, 31st July, 1875, to have reported to the Vienna Geographical Society his meeting, in the course of a journey 150 miles S.W. of Lado, Gordon's head-quarters, with natives who in respect of their *diminutive stature*, their *lighter colour*, and their general habits, resembled the Niam-Niams of Schweinfurth. This was in the Makraka territory, the mountains of which had been seen by Schweinfurth to the eastward of Baginzi.

was alone. He poured water into a glass in small quantities, and drank it, then repeated the same process several times, as though he was afraid of using more than was necessary. This would seem to indicate that in their country water is very rare, and not easily procurable." In confirmation of this hypothesis, I may observe that Schweinfurth was told by the Akka he saw in Monbuttoo that the rivers of his country were very small. The writer of the article in *L'Italie* makes the following remarkable statements, to which I would invite special attention: "*The Akkas do not seem to have the sense of smell.* If flowers were given them they would look at them, but did not think of inhaling their perfume. If it was pointed out to them by a gesture that they ought to smell the scent of the flowers, they obeyed, and exhibited astonishment, as though it was something they would never have thought of themselves. On the other hand, the sense of *touch* is extraordinarily developed. They gave proofs of skill in stone-throwing, and showed themselves very able at transfixing the fish in a tank with a sort of wooden arrow. They also showed a special aptitude (noted also, I think, by Schweinfurth) for catching birds in a garden. In short, they want neither physical strength nor courage, having no fear as to fighting tall men. Their boldness, indeed, is known, for in their own country these little men often encounter the elephant victoriously. The Akkas easily remember and repeat certain musical phrases. Their pronunciation is soft, and they can utter all the letters of the [Italian] alphabet. The younger, however, cannot pronounce 'z,' and instead of 'pazzo,' says 'pattato.'"

Whether or not we agree with Schweinfurth in considering the Akkas to be the remains of an aboriginal African race, we may at least join with King Victor Emmanuel in his thanks to the Viceroy of Egypt for the care he took to transfer safely to Italy these specimens of an almost fabulous race, and also in his expression of the belief that "science will profit by them for the study of Anthropology."

After some remarks from Professor LEITNER and Dr. CARTER BLAKE, a paper was read, of which the following is an abstract:—

NOTES ON THE ABORIGINES OF WESTERN AUSTRALIA.

By SAMUEL WAKE.

Communicated by C. STANILAND WAKE, V.P.L.A.S.

WHILST residing at Cubbine, in the Swan River district, Western Australia, I had a good opportunity of observing some of the manners and customs of the natives, who were generally numerous in the vicinity, and had not for the most part had much contact with Europeans. There is about as much difference of dialect amongst the natives of the Swan River Settlement as there is in the various counties in England. The calves and arms of the natives are generally very thin, but where game is more plentiful the natives are

usually stronger and better built. They are generally shorter than Europeans, but a few are nearly six feet high ; they allow very little hair to grow on their bodies, but cultivate a "billy-goat beard." When old they get very ugly. Their only dress is a cloak of kangaroo skin, with the wool inside, and fastened at the neck by a sharp bone ; the men encircle their foreheads with bands of opossum wool or a native dog's tail, in which they stick white cockatoo-tail feathers ; they also smear themselves with red earth mixed with an oil which they call *wilgey*.

The natives marry at a very early age, but without any special ceremony. They steal women from other tribes. The women do all the drudgery, the men doing little besides hunting, and eating the best part of the game, leaving only the bones for the women, whom they also frequently beat in a violent manner. The natives are naturally lazy, but sometimes make good shepherds, and several are employed by the Government as mounted police with good results. They are generally quiet and tractable towards white men, but are great thieves, and often murder one another. The chief weapon is the spear, which they throw with great accuracy to a distance of seventy or eighty yards, with the aid of the curious instrument called *mero* ; they also use the *boomerang*. Their food includes the kangaroo, opossum, bandicoot, iguano, snakes, fish, and grubs. The kangaroo was formerly speared, but since the Europeans introduced dogs it is hunted by them ; the opossum is caught by climbing the tree in which it is concealed, notches being cut in the tree with a stone or other implement, by which the natives will climb any tree, however tall and straight. The opossum is baked whole in ashes, without being skinned or drawn.

The Western Australians appear to have no idea of a Supreme Being, but believe in a spirit of evil, whom they call "Chungi," for fear of whom they seldom leave their fires at night, unless accompanied by a white man or well supplied with torches. When they beheld the first white men they supposed them to be the spirits of their deceased relatives, and even thought they could identify them, and named them accordingly after individuals formerly belonging to their tribe. They have a tradition that a number of white men landed on the coast a long time ago, but were frightened away by the *degong*, a kind of bittern, which makes a cry audible at a great distance in the night, and is very numerous in swamps near the Swan River.

The Honorary Secretary, by way of illustrating Mr. Wake's paper, exhibited various articles from South Australia, presented to him by Mr. G. E. Lewis, who describes them as follows :—

Specimen of Talco Net.—The talco is a broad-leaved flag, found in the sand-hills. The process of manufacture is very tedious, every leaf having to be chewed in the mouth to remove the pulpy parts ; the fibre is then rolled on the thigh into the form of twine and made up. The work of masticating and twisting generally falls to the lot of the Lubras (women).

Mundic.—A small net carried on the back by the Lubras, a sort of general receptacle, sometimes presenting an appearance similar to a marine store dealer's warehouse on a small scale. It is made from the sinew of kangaroo tail. The sinews are taken from the tail, then divided into fine threads and dried in the sun; it is afterwards made up into string in the same way as the Talco fibre.

Net for catching Wallaby (a small marsupial kangaroo-like animal about the size of a hare), also made of kangaroo sinew. The men break down the scrub or bushes in a continuous line for from half to three-quarters of a mile, forming a line of fence from one to two feet high, with occasional openings about two feet wide, at each of which one of these nets is set, spread open with sticks, and pegged to the ground. The Lubras in the meantime, with their children and dogs, spread themselves out in a line parallel with this fence, but a mile or so away, and commence driving everything before them. The men remain in charge of the nets, and each claims all caught in his own.

Waddies.^{*}—1 (for warfare). The darkies had need have tolerably thick skulls, as they stand and take blow for blow over the head with these delicate little instruments. 2 (for the chase). These they throw at the game, and generally succeed in turning over a wallaby or bird anywhere within sixty or seventy yards.

Wommera (or *Mero*), for throwing light reed spears, used by the tribes on the Murray and other rivers, but not by these natives (Yorke's Peninsula, South Australia).

Boomerangs (1, for warfare; 2, for hunting).—The natives are very expert in throwing these; they will strike an object at from one hundred to two hundred yards, the boomerang returning and falling at their feet.

After some remarks from Dr. CARTER BLAKE, Professor LEITNER, and Mr. JEREMIAH, a paper was read of which the following is an abstract:—

NOTES ON THE JAVANESE.

By A. H. KIEHL, F.L.A.S.

JAVA is situated between the 6th and 9th parallels of south latitude, and the 105th and 115th meridians east of Greenwich, and contains 51,336 square miles. It is mountainous and of volcanic origin, the south coast being bold and rocky, the north coast low and swampy, especially near the rivers, which are forming extensive mud banks from soil brought down from the interior. Off the north coast are some coral islets. The country is very fertile and well populated, although there are parts inhabited principally by the tiger, rhinoceros, wild boar, ape, and other wild creatures. Its rainy season is from October to April.

I consider the aborigines of Java, Madura, and Balli to consist

^{*} A waddy is a knobbed stick from fifteen to twenty-four inches long and as thick as an ordinary ruler.

of two different branches of the Malay race; the Malays proper forming the one, and the Javanese proper, the Madurese, and the Ballinese, forming three different families of the other branch.

These peoples are all short but well-proportioned, with light brown skin, straight black hair, dark eyes, flat noses, wide nostrils, and regular teeth; but the Malays proper are rather smaller and stouter than the Javanese; their heads are also more globular and their faces rather flatter; they also wear their hair cut, while the others wear it long. The Ballinese are stronger and taller than the Javanese. There are also differences of language and custom, and the Malays proper live together in villages apart from the Javanese. The Javanese have also written characters and a literature of their own. They are very clean except in their heads; they never pick up or throw away dirt with the right hand, but always with the left.

The dress of the males consists of the sarong, a piece of calico, six feet by three, drawn tightly round the loins, and folded and rolled up tight in front; the badjoe, a jacket with tight-fitting sleeves, standing collar, and row of buttons; the tjelana, or trousers, and the stangan kapala, or headkerchief,—all of which are worn in different ways by the Malays, Javanese, Madurese, and Ballinese. The Malays and Javanese also wear scarves, in which they carry their purses and weapons. The dress of the females resembles that of the males, except in the matter of the headkerchiefs and the trousers, which they never wear; in place of the badjoe they wear a kabaya or tunic of silk or calico. The slendang, a kind of large scarf or veil, is worn by the women in various ways, and they also wear costly belts, bracelets, and rings. The toodoong, or sun-hat, is an umbrella-shaped contrivance made of bamboo, coloured or gilt, and varnished, but is sometimes superseded by the payong, a kind of umbrella, the character of which varies with the rank of the owner. Children go naked to their eighth or ninth year.

The Javanese are good horsemen, but their horses, though spirited, are not larger than small ponies. When meeting a prince, etiquette requires them to dismount, sit down, and uncover their heads, if not to turn round afterwards and follow in his train for a while.

The houses of the Javanese and Malays are one story high, and are built of bamboo. The furniture consists chiefly of mats. The Ballinese, however, build houses of unhewn stone, with finely carved and painted pillars of wood inside.

Their food is largely composed, firstly of rice, and secondarily of fish, yams, and cocoa-nuts, which latter are, however, so important that a cocoa-nut tree is planted when a child is born, and is the only record preserved of its birth. Ants, cockroaches, locusts, and an objectionable kind of cricket are eaten; but pork is abhorred. Their agricultural and mechanical appliances are of an inferior description.

Their musical instruments are the biola, or one-stringed violin, hand-bells arranged in frames, gongs, tom-toms, and slips of bamboo

arranged like our musical glasses. Historical dramas are represented with wooden puppets, which are made to cast a shadow on a cloth, as in some of our own children's toys. Gambling, hunting, cock-fighting, cricket-fighting, and fights between bulls and tigers are also very favourite amusements.

Brahminism seems to have existed in Java from very ancient times, and to have been followed by Buddhism, such as it now exists at Balli and Lombok. The number of ancient temples now in ruins, built of huge blocks of stone and most elaborately sculptured, and among which those of Brambanan and of Boro Bodor are the most noteworthy, denote the existence of a civilization in Java, at a very early period in history, far beyond that of the present day. Other ruins exist of smaller temples, such as those of Djabang, near Probolinggo, which are built of bricks or tiles without any trace of mortar: these appear to belong to a more recent period. In the fifteenth century, the Mohammedan religion superseded Buddhism, and up to the present day the Javanese and Malays are Mohammedans in name, though seldom very enthusiastic or really religious; while in different parts of the country the tiger, cow, monkey, waringgin tree, the ancient stone images, or the spirits of the mountains, are all worshipped, feared, or revered. An old cannon was worshipped at Batavia till removed by the Colonial Government. It was believed to have the power of fertilizing barren women, who, with that end in view, used to sit astride it for some time, dressed in their very best clothes and adorned with flowers.

Circumcision is practised by the Javanese, and is generally made the occasion of great festivities. The candidates for the rite have their face, arms, and hands painted yellow, an adornment which is also used by the bride and bridegroom on the occasion of a wedding. Marriages are the occasion of great festivities and ceremonies, and are arranged by the parents frequently during the childhood of the parties. After marriage the women have their teeth filed, and chew *sirih*, *betel*, &c., which turn their teeth black. Polygamy is allowed, and practised by the wealthy; bigamy is not uncommon, yet the majority of the people have only one wife. They are very jealous, and often such jealousy leads to their making *amokh* (committing wholesale murder).

The Javanese are good mechanics after their fashion, though somewhat slow. Their canoes and proas are very fast and well constructed, and they carry on an extensive coasting fishery.

The only native weapons now in use by the Javanese are the kreeses or daggers; but the Ballinese use lances from 15 ft. to 18 ft. long, with steel points, often of snake form, and dipped in poison; they throw these with great precision and effect. They also use bows and arrows of considerable size and force. The Javanese are well acquainted with poisons of various kinds, and also with healing medicines, and often make cures where European doctors fail.

The author concluded by vindicating the policy and character of the Dutch Colonial Government.

After some remarks from Mr. CARMICHAEL, Dr. CARTER BLAKE, and Mr. LEWIS, who observed that the Australians and Javanese both had the same manner of climbing trees, the thanks of the meeting were voted to the authors.

ORDINARY MEETING,

Held at 1, Adam Street, Adelphi, on Friday, 11th June, 1875,

H. B. CHURCHILL, ESQ., VICE-PRESIDENT, IN THE CHAIR.

The routine business having been disposed of, a paper was read, of which the following is an abstract :—

THE SLAVONIANS, OR SLAVES.

By E. RICHMOND HODGES, F.L.A.S.

THE author having acknowledged his indebtedness for materials to various friends and authors, gave the following particulars as to the history of the Slaves. The name is derived from *slava* = glory, renown, or from *slovo* = word, speech, meaning those who spoke a common language, the Germans being called *niemi*, or mutes. Under the name of Serbs the main body of the Slaves appear to have been settled between the Baltic and the Black Sea in the fifth century B.C. Herodotus (bk. iv. 49) mentions the *Κροβυζοι*, or Croatsians, as a Thracian tribe dwelling between the Danube and the Balkan. The Celtic Boii expelled them from Pannonia between 360 and 336 B.C., and considerable wars, migrations, and fluctuations of population took place among the Germans, Slaves, Huns, Avars, &c., in the succeeding centuries. At the end of the seventh century the Slaves occupied Central and Eastern Europe from Switzerland to the Baltic and to Greece, and had even extended into Asia Minor, while the establishment of Slavonic kingdoms in Poland (840) and Russia (862) raised a bulwark against further invasions of the eastern barbarians on the north and west; however, the Germans and Danes from time to time reduced their territories, and Charlemagne made many of them tributary. They now occupy the country between the mountain chains of Central Asia and the Baltic and Frozen Ocean in the north, and between the Oder and upper course of the Elbe in the west, to Behring's Strait in the east.

"No very accurate observations have been made," says Prichard, "by which it can be determined whether the Slavonians have any peculiar physical characters distinguishing them from the other European nations. If such peculiarities exist, they are of a kind not striking and easily discernible. The various tribes differ among themselves, the variety being apparently in relation to climate and local circumstances. In the south-east the Slaves are of dark complexion,

with black eyes and hair; this is the fact with respect to the Croats, Servians, and Slavonians proper. The Poles vary in complexion; many of them are of dark eyes and hair, of tall and well-made figures. The northern Russians are very fair" (we ourselves have seen them quite flaxen or sandy). "Tooke observes that the Russian peasantry have often flaxen, light-brown, or red hair. The Slovaks, who form a considerable part of the population of Hungary, are of the middle height, strongly formed, of a light complexion, with broad and coarse features, half shaded by their long flaxen hair." The Tchekhs, a national designation, which embraces both the Bohemians and Moravians, are generally, as far as our observation extends, tall, and of dark complexion, with dark eyes and hair. The Slavonians were divided at a very early period into East Slaves and West Slaves. The intrusion of the Magyars into their territory in the ninth century, and the extension of the Teutonic tribes eastward, separated the Slaves dwelling on the Danube from their brethren, and produced eventually a third division, the South Slaves. These divisions may be stated in detail thus:—

A.—THE EAST SLAVES,

or Russians, numbering about 60,000,000, are divided into—

1st. Great Russians, in the district of Oka and the Upper Vistula. To these belong the Don and Volga Cossacks.

2nd. Little Russians, including the Pruthenians, Lipowans, and Huzules. To this division belong the Cossacks of the Ukraine.

3rd. The White Russians, dwelling on the Upper Dnieper, the Upper Duna, &c., who form the connecting link between the Russians and the Poles.

B.—WEST SLAVES,

comprising—

1st. The Poles, *i.e.*, *dwellers on the plains*, formerly called Lechs, or *landowners*, amounting to about 10,000,000. These inhabit the district on the Vistula, except in the vicinity of the river Bug, inhabited by Russians, and the districts on the Warthe, where the Germans are settled. The Poles, who have always been in contact with German civilization, are divided into Great Poles and Little Poles, Kassubes living on the coasts of the Baltic, and Massures on the Vistula, in Prussian territory. The Poles in Poland and Galicia are divided into two branches, *viz.*, Goräles, or *moun-taineers*, and Lechs, or *inhabitants of the plains*.

2nd. The Tchekhs, or Bohemians (8,000,000 or 9,000,000), living at the head-waters of the Elbe, March, Waag, Gran, and Neitra, divided into—(a) Tchekhs proper, in Bohemia and Silesia; and (b) Moravian Tchekhs, or Moravians, together with the Hanaks, Horaks, and Moravian Slovaks, in Silesia and Moravia, about 5,000,000. Scattered over the north-western part of Hungary and elsewhere we find much dispersed (c) the Slovaks, numbering about 3,000,000, a most interesting people, believed to be the direct descendants of the

original Slavic settlers in Europe.* (*d*) The Wends, divided into Sorbs and Lusatians, about 150,000. The latter are all that remains of the Polabisch Slavonians. They inhabit chiefly the district near the sources of the Spree and the Black Elster, and are divided into Upper and Lower Lusatians. These tribes are entirely under German influence, and are becoming daily more Teutonized.

C.—SOUTH SLAVONIANS.

These embrace—

1st. The Illyrians, about 8,000,000.

2nd. The Slovenians, divided into : (*a*) Windi ; (*b*) Korutani ; (*c*) Slovenzi ; about 2,000,000. These branches of the great Slavonic family inhabit the upper valleys of the Drave, Save, and Mur, in Carinthia, Carniola, and Styria ; they live among Germans, and are called by many different names, as Krainer, Karster, and Poiker in Carniola ; Savriner and Perkiner in Istria ; while in the Venetian provinces they are called Slovenen and Wends. Their nearest affinities are with the Croatsians and Dalmatians.

2nd. The Croats. Another, which might be designated the Croatian subdivision, embraces—(*a*) the Sloveno-Croats ; (*b*) the Servian-Croats. Their number amounts only to 801,000, and their territory is on the middle course of the rivers Save and Drave. The Croats constitute the link between the Slovenen and the Servians, but they are most closely related to the latter. In religion the Croatsians are all Roman Catholics, and very bigoted and fanatical. Led by the famous Baron Trenck, the Pandours, a Croatian tribe, committed the greatest atrocities in Bavaria and elsewhere during the Austrian war of succession (1740—1746), for which Trenck was condemned to imprisonment for life. He ended his days in the Castle of Spielberg, near Brünn, in Moravia, and his body, embalmed, is now exhibited to view in a glass case in the crypt of the Franciscan monastery at Brünn.

3rd. The Servians, whose number amounts to about 6,000,000, inhabit the banks of the Save and Drave, more particularly near its confluence with the Danube ; they are found also on the rivers Morawa, Drina, Bosna, and in the Illyrian mountains. They are known by a great variety of names, according to the localities where they are found, but they constitute really but one branch of the Slavic family.

In Servia and the Woiwodeship they are called Servians ; in Slavonia, Slavonians ; in Hungary, Raitzen, or Rascier ; in Bosnia they are known as Bosniacs. In other places of their district they are called Morlaks, Dalmatians, Ragusans, Cattarans ; Bocchese in

* The Magyars found the Slovaks, a fair, flaxen-haired people, already settled in Hungary at the time of their invasion in the ninth century. Pannonia had previously belonged to the empire of Great Moravia, and its inhabitants were already civilized and Christianized. From the Slovaks, whom they had enslaved, the barbarous Magyars learned the arts of peace, and received the blessings of Christianity.

Istria and Dalmatia, Uskoks in Carinthia, and Montenegrins in Albania.

4th. The Bulgarians, numbering about 4,000,000, inhabit the ancient Mœsia, Macedonia, and Thrace; in fact, all that part of European Turkey contiguous to the Black Sea and the Ægean, the Sea of Marmora, and the Dardanelles. They extend north as far as the Danube, and south as far as the valleys of Macedonia. They derive their name from the Bolgari, a Finnish people from the Wolga, by whom the country was conquered in the seventh century, and whom they have since entirely absorbed.

The natives of Wallachia are closely related to the Slaves, as are also the modern Greeks; the former are a mixture of Latin and Slavonic, the latter of Slavonic with Greek blood. But, besides the races enumerated in the above list, there is no doubt that Slavic tribes are scattered about through Transylvania, Moldavia, Wallachia, and the whole of European Turkey.

We know that Slavic colonies are met with all over Greece, even as far south as the Morea, where we have local names, as Kastanica, Sitina, Gorico, and Prasto, all Slavonic names. There is even a place Σκλαβοχωρί, or Slave-town. Leake, moreover, in his "Researches," assures us that Slavonic local names are found in all parts of Greece. The Tchaconic dialect, spoken in the eastern part of the ancient Sparta, and unintelligible to the Greeks, has been proved by Kopitar, a distinguished Slavonic scholar, to be of Slavic origin.

The mythology of the Slavic nations presents an interesting field of investigation. Even in the most ancient times they appear to have borrowed their religious notions from foreign nations. A sharply-defined Dualism is its distinguishing characteristic. Their theology is distinguished by a white or good god, and a black or evil god, each of whom has a number of subordinate deities in his train. But the number, names, and attributes of these inferior deities varied with the different tribes. Corresponding to their division into East and West Slaves, their mythology is divided into Eastern and Western; the chief seat of the former, or Russian branch, being at Kiev and Novogorod; of the Western, at Arkona and Rethra. Bielbog, *i.e.*, the white god, was universally revered by the Slavic peoples. He was the god of light and of the sun. The Russians represented him as an old man whose face was covered with swarms of gnats. In Kiev, Perun, the god of thunder and lightning, corresponded to him, whilst at Novogorod he was called Zuitzsch, where he was venerated as the personification of the invisible principle of animal heat. In Arkona, under the name of Swantewit, *i.e.*, holy lord, the supreme deity was worshipped in a magnificent temple, served by a numerous body of priests, where he received the offerings of the faithful. His image was of colossal size; he was clad in a long cloak, and had four heads, two looking forward and two behind. In his right hand he held a metal drinking cup, which the chief priest filled every year with wine, and out of which he predicted

future events. The left hand, placed against the side, formed a bow. At his feet lay a large silver sword, and within the sacred enclosure the trappings and armour of a horse consecrated to his service.

Radegast, who was especially worshipped by the ancient Redarier, had a celebrated temple at Rethra. His image was of gold, his couch of purple, his hair curled and arranged in a circle; on his head a bird stood with outspread wings, and on his breast the head of a black ox supported by the right hand, the left hand holding a double axe. To show in what veneration the bullock was held by the Slaves, we may mention, in passing, that the Slaves of Kiev had a god, Wolos, *i.e.*, *bullock*, whom they held in the highest veneration, and by whom their most solemn engagements were sworn to. The war god was Rugiäwits, represented with seven heads and seven swords at his side, and an eighth held in his hand. Another god of battle is also mentioned, under the name of Verowit, or Gerowit. Among the Russians the god of war was Liada, or Lacton, and Kaleda, or Koliada, was the god of peace. In the temple at Arkona there was also an image of Rugiäwits, and one of Porewits, with five, and Porenuts with four, heads, who had also another head on the breast, the forehead of which was touched by the left hand and the chin by the right. It is not known, however, what was thereby symbolized. A three-headed god, named Triglaw, was worshipped near the modern city of Stettin. He had three golden heads, each with a hat or mitre, and held the moon in his hand. Trigla seems to answer to the Diana of the Romans. A black horse, used for the purpose of prognostication, was consecrated to him. Yutribog was revered as god of the sun and of the morning. The natives of Yüterbogk still point out a granite cross and a circle of linden-trees which mark the spot where this deity was worshipped, and where solemn dances were held in his honour. Prown was venerated in Oldenburg (the Stargard of the Slaves), where was a sacred grove of oaks, which served as an asylum for criminals, as no blood might there be shed. Prowé was the god of law and justice, and offerings were made to him on days set apart for trying causes. The Sorbs had a god, Hennil, or Honidlo, who was revered as the god of shepherds. Morana was worshipped by the Bohemians, or Tchekhs, as the goddess of winter and death, Flins was god of the forests, Krodo was worshipped in East Saxony as Saturn, or god of time, standing on a fish. Sitiwrat was another god of time, and the woodpecker was regarded as his son.

But, besides these, there were other white gods, who received but a limited veneration; to a certain extent they were tribal deities. Thus, the Russians had a god, Makosch, protector of cattle; Chors, god of the harvest; Daschuba, god of rain; Lada, the goddess of love and marriage, who was venerated especially on nuptial occasions. Subordinate deities were Zosim, god of the bees; Tschur, or Tschurban, god of boundaries and landmarks; Gorinia, goddess of the mountains; Rusalka, goddess of streams. All the Slaves venerated the Rusalki, whom they pictured as beautiful Naiads, young and gentle, with long

flowing hair, sitting on the rocks and basking in the glowing sunbeams; and an oath taken at a spring or fountain was regarded as peculiarly binding. Even to this day the Russian peasant has his holy wells, into which he throws silver or copper coins, where they remain untouched by any sacrilegious hand. A similar custom prevailed also in Italy. The custom also prevails in parts of Russia, Poland, and Silesia, of sprinkling and baptizing children and maidens at springs on the second day of Easter, and a bewitching power was attributed to water, whence numerous offerings were made at springs, rivers, and lakes, in order to loose the spell.

There is still held in Russia a feast of Consecration of Water, a relic, no doubt, of their old heathenism.

The head of the pantheon of black, evil deities was Czernebog, god of the night and of darkness, to whom were sacred the oak-tree and the black horse; associated with him were several subordinate gods of storms, tempests, and bad weather in general. Zelu apparently corresponds to the Mercury of the Romans; he was the god who led the disembodied souls to the lower world. Dasyebog, the god of subterranean treasures, answers to Mammon, who dazzles the human senses with a false and hollow splendour. There were also black spirits who dwelt in holes and caverns in the mountains. There was also a goddess of night and despair, named Did. They held the immortality of the soul, the resurrection of the dead, and the life hereafter; in preparation for which, up as far as the tenth and eleventh centuries, sacrifices of wives and servants were made upon the death of their lord. The Earth-goddess, the great Mother, the Cybele or Ephesian Diana of the ancient Slaves, the source and fountain of all life and nourishment, was personified in Meissen and its neighbourhood by Ziza, or Cisa, who was represented, like the Ephesian goddess, with many breasts. As the giver of life she was called Zlota Baba, *the golden old lady*; as goddess of spring she was called Ziewonia, whose opponent was Marzana, goddess of winter.

In Upper Lusatia, worshipped under the name of Dziwitza, she is represented as a beautiful virgin, armed with a bow, and hunting in the thickest woods. She was worshipped by the Polabes under the name of Siva, a beautiful maiden, represented as naked, her hair flowing down to her heels; she holds her hands behind her back; in one hand she holds a golden apple, and in the other a bunch of grapes with a green leaf. Her head is crowned with flowers; and, as goddess of birth and death, she bears the twofold name of Wesna and Morana. The Slavic hierarchy consisted of various orders, claimed to possess delegated supernatural power, and exercised unlimited authority and influence, as dispensers of temporal and spiritual blessings, over both kings and people. Old women, as well as young and beautiful virgins, were found enrolled in the priesthood, who claimed to possess prophetic powers. The Tchekhs were particularly famous for the number and ability of their prophetesses. Offerings of meat and drink, as thanksgivings, and sacrifices of animals, as an atonement, were made to their deities in sacred groves;

while the blood of human sacrifices, of prisoners taken in war, or kidnapped Christians, was poured out at their sacred altars; and captured maidens, crowned with flowers, were burned in the fire. Among the Wends of Lusatia was a grove which was consecrated annually with human sacrifices, and the trees sprinkled with the blood of the wretched victims. Such were the Slaves in the times of their ignorance; but the dark shadow has passed away, and the full blaze of a brighter and a purer light now shines upon them. Christianity was introduced among the Western Slaves from Byzantium, in the ninth century. Some time between A.D. 861 and 863, an embassy came to the Emperor of the East, Michael III., from the Moravian prince Rostislav, who asked the emperor to send him a teacher, not only to instruct his subjects more carefully in Christianity, but also to teach them to read, for it would seem that Slavic colonies extended then, as now, from Constantinople to Bohemia and the Adriatic, through whom Christianity, though in an imperfect and probably very corrupt form, had percolated, until it reached Moravia. In response to their application, two monks, Cyril and Methodius, Slavonians of Macedonia, equally familiar with Greek and Slavonic, were sent to Moravia. These missionaries rendered great service to their western brethren, for they not only gave them further instruction in Christianity, but invented for their language an alphabet, upon the model of the Greek, containing, however, a few letters from the Armenian. The greatest benefit they conferred, however, was a translation of the Holy Scriptures into the old Slavic language, which is still read in all the churches of Russia, and among all the Slavonic peoples who are in communion with the Greek or Eastern Church. By this translation of the Scriptures into Old Slavonic, the language acquired fixedness; and a standard was thus set up for the imitation of subsequent writers, which has proved of inestimable advantage to the whole Slavonic family. "The Slavonic language," says Balbi, "had the advantage of being formed in its infancy upon the model of a rich and learned language (the Greek), an advantage in which Russia participated when this translation passed into Russia." It bears the same relation to the Slavonic languages that the Gothic version of Ulfilas bears to the Teutonic, and, having been at an early period adopted as the authorized version of the Greco-Russian Church, it has become the Bible of nearly the whole Slavonic race. While the purest Russian is spoken in Moscow and its neighbourhood, yet all the dialects of the language are so closely related that, as Balbi informs us, "a native of Archangel meeting at Moscow an inhabitant of Astrakhan, they would converse freely together." He attributes this uniformity of language to the reading of the Old Slavonic version of Cyrillus throughout Russia, and the universal employment of the Old Slavonic in celebrating divine service; for though differing from Russian in grammar, and to a small extent in its vocabulary, it can yet be tolerably understood, provided it be read slowly and listened to with due attention. The most eminent Slavonic scholars, especially those of the Bohemian school, regard the Old Slavonic of the ninth

century as that of the Servo-Bulgarian dialect, and Mœsia, the present Turkish province of Bulgaria, as its home ; and hence it results that the language still spoken in that province, though much corrupted by foreign influences, and abounding in words of Hungarian, Turkish, Bulgarian, Greek, and Latin origin, is the direct descendant of the Old Slavonic. To this standard language, the Old Slavonic, all the Slavic languages approximate in a greater or less degree ; but the Slovakish, the national dialect of the Slovaks, who are scattered throughout Hungary, bears the greatest resemblance to it. The Bohemian, or Tchekkh language, of all modern Slavic tongues the first that was cultivated, is the common property of not only the Bohemians and Moravians, but of nearly two millions of these Slovaks. They are closely related to the Tchekhs, and though their dialect differs somewhat from that of Bohemia, yet "the circumstance of their having since the Reformation chosen the Bohemian for their literary language amalgamates their literary works with those of the Tchekhs, and gives them an equal right," says Talvi, "to the production of these latter." Moravia is inhabited by a Slavonic population amounting to about one million and a half. They are all of Tchekkh origin, and may be divided into five groups, viz., the Hanaci, inhabitants of the fertile valley of Hana, between Olmütz and Kromierziz ; the Horaci, or mountaineers ; the Slovaci, who are related to the Slovaks of Hungary ; the Valaszy, who are supposed to be the remains of a Keltic tribe which has become in course of time Slavonized, and, finally, the Chorvati, three villages comprising a population altogether of 900 souls, the remains of the Croatian colonists who were transferred to Moravia in 1580. There is no trace of difference of language between Bohemia and Moravia, says Mr. Joseph Fricz, to whom I am indebted for the above information, except among the Hanaci, who pronounce always with an aspirate the words beginning with a vowel, as *hulice* for *ulice*, a street ; *bek*, instead of *byk* ; and *belo* for *bylo*, where they pronounce an *e* instead of a *y*.

The Moravians, Bohemians, Slovaks, and Poles, all use the Roman alphabet, while the Servians, Illyrians, Bosniaks, and Bulgarians use either the Cyrillic alphabet of forty-six characters, or the Glagolitic, which is attributed, though very doubtfully, to St. Jerome, who was himself a native of Illyria.

The origin of this Glagolitic or Illyrian alphabet is wrapped up in great obscurity. Whether there existed a Slavic alphabet before Cyril invented one, or not, is very doubtful, but it would appear both that it was unknown to Cyril himself and to the Slavic tribes among whom he laboured ; for all the legends and early historical annals agree in calling Cyril the inventor of the Slavic alphabet. It is only, however, since Kopitar's discovery of some Glagolitic manuscripts *at least* contemporary with the oldest Cyrillic documents that this question has assumed an aspect more favourable to the Glagolitic. Many circumstances favour the opinion that the Slaves were at an early period in possession of a degree of cultivation which would make it difficult to believe that they did not know how

to read and write before the ninth century ; and, in fact, Ditmar, of Merseburg, an ancient German writer, expressly mentions the inscriptions with which the Obotrites, the Slavonic inhabitants of Mecklenburg, used to cover their idols. We may also suppose that the Southern Slaves, neighbours of the Greeks, and in constant communication with Constantinople, would either have adapted the Greek alphabet to their wants, or invented a new one on the basis of it. In connection with this Glagolitic alphabet, we cannot omit mentioning a most singular circumstance, for which we are indebted to Talvi. It was generally known that the kings of France, on their coronation in the cathedral of Rheims, took the oath on a large book called "Texte du Sacre," bound in gold, and covered with unwrought precious stones. It was supposed to contain the Holy Gospels, written in some unknown kind of hieroglyphics. When, in 1717, Peter the Great visited Rheims, this book, among other curiosities, was shown to him, when he at once exclaimed, "This is my own Slavonic!" It was written, however, in two columns, and evidently in two different languages, one of which was said to be Greek, or perhaps Coptic. In 1789, an English gentleman, a Mr. Ford Hill, having been shown some Glagolitic manuscripts in the Imperial Library at Vienna, declared without hesitation that this was the same as the writing in the mysterious "Texte du Sacre" at Rheims. Before this could be ascertained the manuscript mysteriously disappeared, and was missing for half a century. It was sought for in Italy and Paris, but was at last found again at Rheims by the Russian scholar Stroyef. The statement of Mr. Hill was confirmed ; it was a MS. of unconnected portions of the Gospels, one in Cyrillic letters, the other and much longer part in the Glagolitic character, which latter bore the date 1395. All that was known about it at Rheims is that it was presented by the Cardinal of Lorraine in 1554, and it was held in peculiar reverence as the joint production, as was supposed, of St. Cyril and St. Jerome. How it found its way into France has never been explained ; all that can be ascertained about it is that it was written at Prague, and was presented by the Emperor Charles IV. to the abbot of Emaus, with the injunction that these Evangelia should be chanted at mass.

After this short digression, we resume our sketch of the Tchekhs, or Bohemians. It was upon the expulsion of the Boii, a Keltic tribe who gave name to Bohemia, which means *home of the Boii*, and upon the defeat or dispersion of the Marcomanni, a Teutonic people, that the Tchekhs, in the sixth century of our era, entered into the territory which they have continued to hold till our days against all comers. Receiving the arts and learning of the West, Bohemia has allowed herself to be permeated, but not absorbed, by a foreign influence ; while condemned by her very position to heroic deeds, she has maintained her position against all antecedent probability. The Tchekhs came into Bohemia from a region north of the Carpathians, called at that time Belo-Chrobatia.

According to some Slavonic scholars, their national designation---

of which they are very proud, disliking very much to be called Bohemians, which they certainly are *not*—is derived from their leader Tchekkh; but Dobrovsky more satisfactorily derives it from *czeiti*, to *begin, to be the first*, so that with him Tchekhs signifies Front-Slavi, or something of that sort, and designates their advanced position, pushed out as they seem to be into German territory and exposed to attack on all sides. The person of Tchekkh has rather a mythological than a historical foundation, for indeed the whole history of that period is intimately interwoven with poetical legends and mythological traditions. The hero of the ancient chronicles, Samo, the reputed founder of the Tchekkh kingdom, “the just Krok, and his wise and beautiful daughter, Libussa, and Perzmislas, the peasant, but the husband of her choice, all move,” says Talvi, “in a circle of poetic fiction.” Nevertheless the choice by Libussa of the peasant for her husband, in preference to her noble suitors, indicates the existence of a free and independent peasantry. But here, as elsewhere among all Slavic nations, history properly so-called commences only with the introduction of Christianity. This was in part effected by Borzivoi, the descendant of Perzmislas, who having gone to ask the aid of Swatopluk, Emperor of Great Moravia (a Slavonic state, which till overthrown by the Germans and Hungarians extended from the Alps to the Carpathians), against the attacks of the Saxons, found the monk Methodius at his court, and received baptism at his hands. Christianity was also forced upon the Tchekhs by the Franks and Saxons, their inveterate enemies. The struggle against the Teutonic element shows itself in the national traditions, not only in the story of battles, but in the exaltation of manners and paternal traditions opposed to the foreigner. Thus, in an ancient heroic poem, called “The Judgment of Libussa,” we read, “It would be a shame for us to go to seek law among the Germans: the right is determined by the laws which our fathers brought with them into these countries.” Bohemia, under the sovereignty of her dukes, and from A.D. 1198 under that of kings, was independent of the German empire. It recognised a kind of sovereignty in that powerful neighbour, and the kings of Bohemia deemed it an honour to belong to the seven Electors, who chose the secular head of the Christian world. In the year 1306 the last male descendant of Perzmislas, whose house had reigned for about five hundred years in uninterrupted succession, was murdered, and after a short interval the crown of Bohemia fell by succession to the house of Luxemburg, and thus became several times united with the Roman imperial crown. Our space will not allow us to pursue the interesting history of this heroic people further, for that would demand abler treatment than we could hope to give it—to chronicle its deeds of valour, its battles in defence of civil and religious liberty, and its sufferings in upholding the dearest rights of man. The names of John Huss, of Jerome of Prague, and a host of other brave and worthy men, are recorded in the page of history, and reflect a glory on the nation to which they belonged. Of all the Slavic

dialects the Bohemian is unquestionably the most, as it was also the earliest, cultivated. It is one of the few languages which, in philosophy, theology, and jurisprudence, have not borrowed their terminology from Greek and Latin; by its free and independent construction the Bohemian approaches the Latin, by its richness in conjunctions it differs essentially from the Russian, and is able to imitate the Greek in all its lighter shades. It yields neither in copiousness nor in pliability, and in respect to lexical and grammatical cultivation it is superior to them all, while the Bohemian language alone has hitherto succeeded in perfectly imitating the classic metres.

But, leaving the Tchekhs, we must return to the consideration of the Slaves in general. The bitterness engendered by centuries of warfare and the cruel oppressions sustained at the hands of the Germans are deeply rooted, we fear, in the hearts of both nations. The Slave looks upon the German as a cruel, unjust, arbitrary, and tyrannical master; the Teuton retorts by branding the Slave with incapacity, cowardice, treachery, and deceit.

Hoffmann says, respecting the Slaves in Pomerania and on the Baltic coasts, "Nor although pressed down by hard bondage have they even to this day laid aside their former manners and internecine hatred to the Germans, but still do they whisper in the ears of the dying Slave, 'Depart into the other world, and there rule over the Germans as they have ruled over thee in this world.' On account of the obstinacy of this race, although slavery be abolished by law throughout Germany, the Slaves alone to this day are oppressed by the heavy yoke of bondage, whence we Germans call all bondmen Slaves." It is needless for me to point out that we through the French *esclave* have derived our word *slave* from the same source. What a perversion of meaning—*slava*, which in their language expresses renown and glory, has come at last to designate the miserable victims of cruelty and oppression! And yet glory belongs to the Slaves. Our learned President has shown in his valuable paper on the Prussians that some of their greatest men were Slaves, and we need only look at the long list of heroes and martyrs, of poets and prose writers, historians, doctors, theologians, grammarians and philologists, philosophers and statesmen, painters, architects, sculptors, and musicians, to convince ourselves that the Slavonic race, and the Tchekhs in particular, have produced some of the most talented men in all the departments of learning, art, and science. We must not omit to say that as a national characteristic the Slaves are distinguished for the sweetness and elegance of their poetry, especially their lyric poetry, specimens of which were given to the British public by Sir John Bowring some years ago in the *Foreign Quarterly Review*.

Of the Russians, the Poles, the Silesians, the Cossacks, Bulgarians, Servians, and Illyrians, I have not space to discourse on the present occasion; each one of them would fill a long, and possibly an interesting, paper. I shall therefore conclude my remarks by saying a few words on the genesis or relationship of the Slaves to

the remainder of the Indo-European family—a question which some may think should have been treated first instead of last. Some, as Frenzel, who wrote at the close of the seventeenth century, have taken the Slaves for a Hebrew tribe, and their language for a dialect of Hebrew; there are some German and Italian historians who derive the Slavonic language from the Thracian, and others suppose that they were designated as Scythians by the classical writers; lastly, there are a few who think them in some way or other related to the Kelts. Donaldson, in his “Varronianus,” p. 45, has something in favour of the last hypothesis; for he says, “The connection of the Pelasgi brings them into close contact with the early Keltic tribes.” In p. 36 the same author says, “Mr. Gladstone, who has particularly noticed in his ‘Homer and the Homeric Age’ the relations between the Pelasgians and Egyptians, comes to my conclusion, that the Medes, *i.e.*, the Sclavonians, are to be regarded as the fountain-head of the Pelasgian race.” Here we have a variety of conjectures, but nothing more. It is from the very uncertainty which overhangs the matter that I have relegated it to the last. History is silent, and tradition is dumb; but as a philologist I should decide, from the evident relation of the whole of the Slavic dialects to the Sanskrit, both in vocabulary and grammar and the numerous words common to both languages, that the Slaves are an independent branch of the great Aryan family, just as independent and self-contained as the Iranians or Persians, the Teutons, the Hellenes, or the Latin races. It is evident that in very ancient times the whole Slavic race spoke only one language, which at an early period got broken up into different dialects, while the analogy of this Slavic tongue with the Sanskrit proves them to be the same great race as the Kelts, Teutons, and Greeks. Beyond this, it seems, all is darkness and obscurity.

DISCUSSION.

Mr. LEWIS said Mr. Hodges had spoken of dark Slaves and light Slaves, but it was obvious that, although these peoples might speak the same language, and have much tradition and custom in common, they could not belong to the same race. So far as he could gather, the Slaves were a dark-haired and dark-eyed race, and he was disposed to connect them with the dark-eyed and dark-haired division of the Celts, commonly called Atlanteans or Iberians. Some of their ideas, such as those about immortality, and their attachment to groves and wells, were similar to those found in Celtic countries, and it would be interesting to know whether these ideas and customs belonged to the dark or light Slaves, or to both indifferently.

After some remarks from Mr. CARMICHAEL and Dr. KAINES, a paper was read, of which the following is an abstract:—

LOUISE LATEAU (THE ECSTATIC OF BOIS D'HAINÉ,
BELGIUM).

By C. CARTER BLAKE, Doct. Sci., Hon. For. Sec. L.A.S., Lecturer on Comparative Anatomy and Zoology, Westminster Hospital School of Medicine.

THE descriptions which have been given of the phenomena which are presented by Louise Lateau from the pens of Lefebvre, Meyer, Curicque, and Virchow have thoroughly familiarised physiologists with her peculiar symptoms considered from many discordant points of view. Professor Virchow challenged the partisans of the mystic to a series of tests, which, as may be imagined, were not accepted. The Royal Academy of Medicine of Belgium, on the other hand, appointed a commission to investigate the whole matter, the report of which shows that no careful watch has been kept over her to test her statement that for the last three years and a half no nourishment has been taken by her except the Blessed Sacrament. M. Warlomont considers that in the night, when she is supposed to be awake and absorbed in religious contemplation, she is really in a state of somnambulism, and may unconsciously consume the little nourishment of which her body seems to be in want and obey the other calls of nature.

As M. Warlomont well says, the other phenomena presented by Louise ought to be scrupulously separated from the pretended abstinence, which physiology must reject, and the Commission therefore endeavoured to ascertain the fact, "does Louise Lateau really bleed?" The problem to solve was to place one of the stigmatised hands before it bled in an apparatus which, without altering the physiological conditions of the part, should render the contact of any wounding instrument, or the intervention of any manœuvre to produce bleeding impossible, and to keep this on from the Thursday, when there was no idea of hemorrhage, until Friday afternoon. This was effected by imprisoning the right hand in a glass globe so arranged as to be impossible to be removed without detection, and fitted with an apparatus which permitted air to get to the hand, while excluding any instrument with which a wound could be inflicted or a vacuum created such as might draw the blood to the stigmatised regions. When, however, on Friday morning this apparatus, after being examined and found intact, was removed, about five grammes of blood were found in the globe, and some clots on the hand, which, being removed, disclosed a wound about fifteen millimetres long and five millimetres broad on the back of the hand, from which more blood flowed, and a similar wound on the palm. This phenomenon may, however, be accounted for quite naturally by simple capillary dilatations and ectasic tumours. M. Warlomont considers that the latter are formed by hypertrophied papillæ of the cutis, and traces out the method by which these are converted into hemorrhagic stigmata;

the first phenomenon is pain followed by thickening, palpitation of the vessels, heat, and finally the production of a swelling; phlyctenoia dilatation always precedes the flow of blood. It is at the moment when the excess of serum breaks the epidermic coat to pass outwardly that hemorrhage declares itself. This is but the ordinary sequence of events, first the passage leucocytes, next the formation of phlyctenæ, and lastly the passage of the red globules.

M. Warlomont is inclined to believe that if the fasting of Louise Lateau is a fraud, her ecstasies, trances and stigmata are so far genuine that they are involuntarily and unconsciously performed on her part, and that the former are probably due to paralysis of the vaso-motor centre, the sores being aided by scratching, partly induced by such paralysis. The regularity of the attacks may be explained by the law of similarity, by which like produces like. The absorbing power of the fixity of the idea and the persistence of pain in the hands exclude in Louise Lateau all tendency to diversion of thought, and it would be surprising if the greatest attacks should take place at a different date to that of the Friday, which is associated in her mind with such events. Ecstasy and stigmatisation are therefore neurosis, to which the name of "stigmatic neuropathy" has been given. Professor Virchow's suggestion that Louise was entirely an impostor is not proven, and the experiment on the hands is sufficient to ensure its rejection. The theory of Lefebvre, that her case is a genuine miracle, we shall not stoop to discuss. Dr. Warlomont seems to hold the balance very carefully between the two hostile camps, and we are thankful that for the first time since the controversy commenced, a trustworthy account of this unpleasant and suspicious young female has been given us.

DISCUSSION.

Dr. RICHARDSON, F.R.S., supported Dr. Blake's views generally, and gave an instance of an English lady who had applied to him on account of spontaneous bleeding from one hand, and had been cured by him, but who might well have been the subject of such a "miracle" as that of Louise Lateau.

After some remarks from Mr. REW, the thanks of the meeting were voted to the authors, and the meeting was dissolved.

SPECIAL MEETING,

Held at 1, Adam Street, Adelphi, W.C., on Friday, 25th June, 1875,

H. B. CHURCHILL, ESQ., VICE-PRESIDENT, IN THE CHAIR.

The routine business having been disposed of, the following paper was read :—

THE ORIGIN OF THE MORAL IDEA.

By C. STANILAND WAKE, V.P.L.A.S.

BARBAROUS as are the lowest races of mankind, it would be a mistake to suppose that they have no idea of the impropriety of certain actions which we regard as immoral. Among the lowest savages murder, adultery, and theft are looked upon as deserving of punishment; which, however, is left to the parties more immediately concerned, instead of being inflicted by public authority, as among more cultured races. Those actions are no less crimes in the eyes of the barbarous Australian than of the civilized European; with each they are opposed to a recognised law of social existence, which is equally binding over both, although in the former case it finds expression only when its infraction is punished.

It would be a mistake, on the other hand, to suppose that murder, adultery, and theft are punished among savages because such actions are thought to be “immoral,” as we understand this term. It may safely be asserted that the idea of immorality is wholly absent from the minds of the peoples who are usually described as uncivilized. Certain actions may be considered inexpedient, but as to being “wrong” in the abstract, it is impossible to believe that such a notion could be entertained by the Australians, the Papuans, and many other primitive peoples, in their native state; except perhaps occasionally by an individual far superior to his fellows, to whose mind a glimmering of higher things may be presented. It is true that acts of kindness and generosity are said by Collins to have been praised by the natives of New South Wales, while they condemned the midnight murders to which they were often incited by passion and revenge. On speaking of cannibalism, they expressed great horror of it, and said it was *wee-re* (bad), and on seeing any of the white men punished or reproved for ill-treating them, they expressed their approbation and said it was *bood-yeer-re* (good). Collins adds, significantly, however, that “their knowledge of the difference between right and wrong certainly never extended beyond their existence in this world.” Again, Mariner declared that the Tongans “firmly believe that the gods approve of virtue and are displeased with vice; that every man has a titular deity, who will protect him so long as he conducts himself as he ought to do, but if he does not, will leave him to the approaches of misfortune, disease, and death.” The moral value of this belief, however, could not be great, seeing that theft,

revenge, and murder were, under many circumstances, held not to be crimes, and that the Tongans had no independent words to express such ideas as *virtue*, *vice*, *justice*, *injustice*, *humanity*, *cruelty*, and that the only word to denote *chastity* was one meaning "fixed" or "faithful," which was applied also to denote loyalty to a chief. Bishop Williams affirms that the New Zealander, who is sometimes spoken of as the "noble savage" of Polynesia, could not understand the doctrine that it is wrong to indulge in evil propensities.

That the condemnation by uncultured peoples of certain actions is not due to any sense of moral wrong may be inferred, moreover, from the fact that it is only under certain conditions that they are disapproved of. Severely punished when perpetrated against a member of the tribe, unless (as in the case of adultery) by consent, they are considered innocent, or, if condemned at all, only as inexpedient, when directed against a stranger. To what source are we to refer this distinction? It can only have arisen from the idea of personal right, the origin of which can best be ascertained by reference to the creatures below man in the scale of being. With the lowest forms of animal life the only mode of action exhibited is an instinctive response to certain stimuli, external or internal, the sole object of such action being either self-preservation, or the satisfaction of the sexual instinct. Leaving the latter out of view at present as secondary to the individual, we may say that the activity of the lowest form of animal organism has for its chief aim the acquirement of something which it instinctively recognises as necessary for its self-preservation. Higher in the scale of being the action is also instinctive, and its object is still the same. Even among the vertebrates we find the instinct of self-preservation equally active, although there is added a certain amount of rational thought as to the means by which the end is to be attained. Moreover, all animals alike resent interference with that which they have acquired for the purpose of self-preservation, according to their capacity for so doing. The bird which has built a nest, or obtained certain food, instinctively feels that it has secured an exclusive interest in the object as against all other creatures. We have here the source of the notion of "property," in relation to which there is no real mental difference between man in his primitive condition and the animal. Animals instinctively act on the principle that they have a right to retain that which they have acquired a property in, and it must have been this principle which guided primeval man, as it does the lowest savages of the present day, when they repel invasions on their property.

The sense of right, arising from the possession of property, entertained by an individual is perfectly consistent with the recognition of an analogous right in others. The notions of right and wrong are dependent on each other, and they may in fact be taken as two phases—the affirmative and negative—of but one idea. Of these the negative phase would be the first to be formulated, since until the instinct of right has been aroused by interference with that which it sanctioned, the notion of "property" cannot be actually formed. Of

course, the affirmative phase of the idea would be instinctively associated with the negative, but there could be no definite idea of right in the absence of wrongful interference with the property to which it has relation. When once the notion of wrong was entertained there would be a link to connect the right itself with that of others. Sooner or later the inference would be sure to be made that if it is wrong for others to interfere with the property of self, it must be wrong so to act in relation to the property of others, and therefore that others have rights analogous to those which appertain to self. That the moral idea is really founded on that of "property" is evident enough, from the fact that among peoples of a comparatively high degree of culture nearly all crimes have a material price, the payment of the fine fixed for the offence being considered a sufficient satisfaction. The case of adultery may be thought to differ from others, but the absence of any moral element from that offence among uncultured peoples is proved by the condition of woman as a chattel, the criminality or otherwise of actions affecting her depending on the consent of the husband or parent. No doubt the development of the moral idea is greatly assisted by the social instincts, but, as I shall show, these by no means occupy the fundamental place in that relation assigned to them by Mr. Darwin.

It is evident that the possessory rights, the interference with which constitutes the offences of savage life, give little scope, if any, for the exercise of what is called the moral sense; since the propriety of an action is determined, not by reference to a general rule of morality, but by its interference or otherwise with the rights of others. We have now to show, therefore, how certain actions came to be clothed with an ethical character. An intermediate stage would be where it has come to be recognised that the interests of the individual are more or less those of the clan or tribe, and, as tribal union becomes perfected, each member of the clan will consider every action criminal which is directed against the rights of any other member, just as though he himself were personally affected. This has relation, however, usually to injuries from without, and it is rather a generalization, so to speak, of individuals—those who compose the clan—rather than of ideas. There is in this no notion of "morality," and it is doubtful whether such a notion would ever have been formed without the introduction of a further element, which has now to be pointed out.

The idea of criminality in relation to the actions of self was formed consequent on the feeling that such actions are resented when directed against one's self, and the experience that interference with the property rights of others within the clan is condemned and meets with resistance and revenge. We see here the influence of the fear of retribution, and we can hardly doubt that to an analogous influence was due the fact that actions at one time indifferent came to be considered immoral. All uncultured peoples have great dread of spirits or demons, and most of them perform certain rites or make offerings on particular occasions to the manes of the dead for the purpose of

"laying" them and preventing them from annoying the living. The most important point to be attended to is revenge for death itself, disease and death being attributed by most uncultured peoples to sorcery. The slaying of the sorcerer is, therefore, considered by the survivors as a duty they owe to the deceased, and one the non-performance of which, like the omission of the proper funeral ceremonies, will cause them to incur his displeasure. We have here certain well recognised "rights of the dead," the observance of which is enforced by the dread of spirit retribution. The influence of this dread is shown in various other customs of uncivilized life, such as the scrupulous abstention from the eating of certain animals or plants which are *kobong* (protector) to the persons abstaining. The savage has the greatest horror of transgressing this superstitious requirement, and strange as it may seem, this feeling is undoubtedly closely connected with what we call *conscience*. He who fears the anger of a spirit, on whom he cannot retaliate, if he performs or neglects to perform a certain act, will in time come to consider it a *duty* to do what the spirit is thought to require. It is true that among uncultured peoples this dread of retribution has reference only to the infringement of the rights of the dead—or at least of the denizens of the spirit-world—and not at all to actions of mere social impropriety or wrong-doing. It is evident, however, that although robbery, adultery, and murder are not looked upon as morally wrong, yet that, should they come to be regarded as disgraceful and blameworthy—as they must do with the progress in general culture—they may ultimately be treated as actually immoral, if, like actions which are infringements of the rights of the spirit-world, they are forbidden by a competent authority. With the addition of the element of retribution, or rather the dread of it, from some invisible being, as a restraining influence from such actions as murder, adultery, or theft, the abstention from these actions will finally come to be considered as much a duty as the observance of the absurd requirements of a debased spiritism.

Before gods or spirits can be supposed to look with so strong disfavour on actions such as those indicated as to require them to be abstained from, a similar notion as to their moral character must have been formed in the mind of man. The gods of uncivilized man, or at least the moral qualities which they are supposed to possess, are merely a reflex from the minds of their worshippers. Hence, those who approve of stealing do not see any impropriety in having a god of theft. But how is the idea of immorality to be originated in the human mind in relation to actions which have been sanctioned by gods and men for all past generations? It can only have been through the exercise of that faculty of reflection which is man's special prerogative, and through which he has acquired the wonderful culture which distinguishes the civilized man from the savage. A change so great must have taken long to become established, and its commencement was doubtless due to the mental activity of some one man, far superior to his fellows, who, reflecting on the evils which

accrued to society from the unbridled passions of those around him, and believing that the gods could not view with favour the actions which sprung from them, would instinctively recognise the duty of abstaining from such actions. If such a man felt that he was born to ameliorate the condition of his fellow men, he would denounce the vengeance of the gods against those who acted contrary to the new-found truth which he proclaimed, and he could not fail ultimately to arouse in the minds of his hearers the sense of moral obligation which he had himself realized, the more so as they would doubtless be already prepared by a general advance in culture for the reception of the new ideas. If the teacher were a priest or a chief, as would probably be the case, his influence would be greatly increased. The former is supposed to know the mind of the god and to receive communications from him, while the latter is usually regarded as at least semi-divine. A people in the condition supposed would require little more in such a case than a reference to their sensibilities to convince them that what they had probably long felt to be not right must be actually wrong. When once this notion was established, it would become intensified by reflection, and the gods themselves would then be thought to view actions which had hitherto wanted the moral element with displeasure. At this stage the human mind would be prepared to recognise the duty of abstaining from such actions, and the fear of divine retribution, either present or future, would so quicken the sense of moral obligation that this would be almost instinctively recognised, and conscience, which had been gradually undergoing a process of development, would be finally established.

When man was once thus started on the course of his moral progress, his further and continued advance was inevitable. The moral reformer's teaching would at first be the simple negative phase of the Hebrew Decalogue, "Thou shalt *not* murder," "Thou shalt *not* commit adultery," "Thou shalt *not* steal," and so far he would only enforce the rights of property which form the foundation of moral obligation. The positive virtues of benevolence would ultimately, however, be recognised and enforced, and it is necessary before bringing this paper to a conclusion to show in what instinct of human nature *benevolence* has its source. Mr. Darwin traces the moral sense to the activity of the intellect in connection with the accumulated experiences resulting from the exercise of the social instincts. The sufficiency of this explanation may be tested by what was before said as to the importance for the development of the moral idea of the instinct of self-preservation. If this be true, Mr. Darwin's explanation cannot be sufficient, and it can be applicable only to a particular phase of morality, the active virtues, or benevolence. The social affections are supposed to be based on the parental and filial affections, but as to the origin of these Mr. Darwin thinks it hopeless to inquire. He thinks that sympathy is an instinct especially directed towards beloved objects, but he treats it as wholly distinct from the emotion of love. The mistake here is in supposing

sympathy to be an instinct. It is in reality only a particular phase of emotion allied to that of love, although traceable, like the latter emotion, to an instinct. In seeking for this instinct we must remember that benevolence has relation to others rather than to self; it cannot therefore be that instinct of self-preservation which originated the sense of "property," although it must be almost equally fundamental. The origin of the altruistic virtues might, indeed, be ultimately traced to the sexual instinct, but it will suffice to derive them from that maternal instinct which Mr. Darwin speaks of as being so strong that it leads "even timid birds to face great danger, though with hesitation, and in opposition to the instinct of self-preservation."

The time at my disposal will not permit me to trace the development of the maternal instinct through its several stages. Its transmission to the offspring, forming that bond of affection between brothers, or still more between brothers and sisters, by the same mother, which is often so striking among uncivilized peoples; the formation of those fraternal alliances which are the oases in the desert of uncultured social existence, prepare the way for those wider associations or brotherhoods which have had so great an influence over the moral progress of mankind. It is to the development of the maternal instinct that we must ascribe the origin of the sentiment of benevolence which is the supreme agent in man's moral culture, and of the recognition of the universal brotherhood of humankind which is the highest expression of moral teaching. That instinct alone, however, would not form a sufficient basis for morality. This requires the addition of the notion of "right" which was previously traced to the instinct of self-preservation. The reference to this instinct supplies the deficiency not only of Mr. Darwin's theory of morals, but also of the phase of Utilitarianism of which Mr. Herbert Spencer is the exponent. Finally, the union of the instincts of self-preservation, and the maternal (or sexual) instinct as the joint source of the moral idea in its positive and negative aspects, places morality on a firm basis. Those instincts are, themselves, only the activity or expression of a principle of being, the nature of which we appear to be still as far as ever from ascertaining, but which must contain within itself the germ of all which springs from it, and therefore of all morality.

A paper was then read, of which the following is an abstract:—

THE FETICHISM OF THE RIG VEDA.

By J. KAINES, Doct. Sci., Tr. L.A.S.

OF the three Hindu Vedas—the Rig, the Yaju, and the Sama—the Rig is the oldest, and indeed is, perhaps, the oldest Scripture extant. It is looked upon by the Hindus as peculiarly holy, and as containing all the arts and sciences, history, and poetry. Sanscrit, in which it is written, being no longer a living language,

the Veda needs much learning to interpret it, and it is pretended that it has over and above the natural sense a deeper spiritual sense, discoverable only by a learned and priestly class. To European students it presents many difficulties, of which the philological are not the greatest. Thus we find patriarchal Rishis addressing praise and prayer to the clouds, dawn, winds, rain, sun, fire, lightning, and other natural, as well as artificial, phenomena. How explain this? Comte shows how by his great law of the three states, which proves that all our theories of man and the world are first theological, secondly metaphysical, and lastly positive.

Fetichism is the ascription of life and intelligence, essentially analogous to our own, to every existing object of whatever kind, whether organic or inorganic, natural or artificial, and is in fact the first and most widespread phase of theology. I am now about to show the influence of one of the latest phases of Fetichism on the Rig Veda.

The Rig Veda contains eight books, comprising 1,012 hymns, which are addressed as follows :—

Agni (personification of fire)	210
Agni and others	16
Indra (personification of the firmament)	235
Indra and others	45
Maruts (personifications of winds and storms)	34
Viswadevas (personifications of the universal gods)	68
Aswins (personification of the sons of the sun)*	53
Ribhus (human beings elevated for their piety to the rank of divinities)*	12
Ushas (personification of the dawn or dawns)*	21
Soma (personification of juice of <i>soma</i> plant)*	120
Brahmanaspati (a personification of Agni)	4
Vrihaspati (governor of good genii and of the planet Jupiter)	5
Earth and sky	7
Waters and rivers	4
Celestial cows	2
Various personifications and manifestations of the sun (Surya, Puchan, Savitri, Mitra, Varuna, Adityas, and others)	67
Apris *	7
Vayu *	8
Rudra *	4
Vishnu (personification of a manifestation of the sun)	3
Various personifications, dialogues, &c., &c. (mostly a single one to each subject)	87
	<hr/>
	1,012

Exactly one half of the entire number are directly addressed to Agni and Indra. I say *directly* addressed, because the greater part of the remaining half are also addressed to the same gods or personifications under their diverse manifestations. Agni is the Latin Ignis, and corresponds to the Greek Hephaestos, and there is a Vedic description of Agni as being generated from the rubbing of

* Some of these hymns embrace other subjects, or personifications, in addition to those to which they are here assigned.

sticks. The name of Indra is derived from *indu* drop-sap, and he is thus the god of rain, and his beard of lightning is the red beard of Thor.

These hymns were probably composed at different periods of one great era by fathers of families, and transmitted orally from generation to generation, for, as Comte has said, the chief imperfection of Fetichism is that not till a late period does it allow the rise of a priesthood qualified to direct man's future progress; when, however, the stars, which are long without honour, come to be the principal fetiches, they are felt to be so far beyond the common reach that a special or priestly class of interpreters and mediators is formed; in this stage Fetichism borders on Polytheism, which latter has always originated in astrolatry, as is clear from the names of the greater gods.

There is no mention in the hymns of any temple or public place of worship; animal, and possibly human, sacrifices seem occasionally to have been made, but the habitual offerings may be regarded as consisting of clarified butter and the juice of the *soma* plant,* and the sacrificers were the fathers of families, the first natural priests.

As the social organism became complex, its primitive simplicity could no longer be maintained, and like the individual organism, when it becomes complex, differentiation of function ensued. No society is, or ever was, possible without organization, and the old Theocrats understood this better than our modern revolutionists, who deify individualism and glorify licence. In this way it was that the system of castes was established, and it was sanctioned by religion in order to abate the barbarous, unsettled, and disorderly propensities of primitive man.

The Brahmin, or priestly caste, took upon itself the entire spiritual power, that of Khattriyas, the temporal power, which in primitive theocratic societies is represented by the warrior caste, and that of the Vaisyas the husbandmen, or agriculturists for the entire community. With respect to the Sudras, or labourers, they are regarded as the subjugated peoples—the slaves—and hence it was that they were not admitted to hear the Veda, which was the privilege only of the conquering race.

The hymns generally, says H. H. Wilson, combine the attributes of prayer and praise, the blessings prayed for being, for the most part, of a temporal and personal description; there are a few indications of a hope of immortality and of future happiness, but they are neither frequent nor in general distinctly announced, although the immortality, or rather the *un*-mortality of the gods is recognised, and the possibility of its attainment by human beings exemplified in the case of the demigods termed Ribhus, elevated for their piety to the rank of divinities; protection against evil spirits (Rakshasas) is also requested, and in one or two passages Yama and his office as ruler of the dead are obscurely alluded to, and the gods are in one hymn solicited to extricate the worshipper from sin of every kind.

* H. Hayman Wilson, M.M. Grazia and David, A. S. Murray.

Is there any warrant for speaking of the monotheistical system of the Vedas about which Ram Mohun Roy wrote a book? What he knew of the Rig Veda may be gathered from the statement of Prof. Max Müller, who says "The Veda with him was chiefly the Upanishads, and he had hardly any knowledge of the hymns of the Rig Veda." As Ram Mohun Roy cites nothing from the Veda to prove the existence of the monotheistical system he wrote about, no further allusion will be made to him. What Brahmins may think they find in the Veda, reading between the lines, they alone can say. "The eye only brings with it that which it has the power of seeing." The character of the hymns, and the persons to whom they are addressed, ought to suffice to show that they have *no* monotheistical tendencies. Professor Wilson observed on this point, "We thus find that most, if not all the deities to whom the hymns of the Rig (Veda), as far as those of the first Ashtuka extend, are resolvable into three : Agni, or fire ; Indra, or the firmament, and the Sun ; or indeed, as the sun is only a manifestation of fire, we might resolve all forms into two—Agni and Indra. We may, however, consent to take the assertion of Yaska, that there are in the Vedas three gods : Agni on the earth, Vayu or Indra in the sky, and Surya in heaven ; of each of which there are many appellations expressive of his greatness, and of the variety of his functions. There is nothing, however, confining our negation to the present portion of the Rich (Rig) to warrant the other assertion of Yaska that all the gods are but parts of one *âtma*, or soul, subservient to the diversification of his praises through the immensity and variety of his attributes. The *Anukramânikâ* goes further, and affirms that there is but one deity, the great Soul (*Mahân-âtma*), *quoting, however, in support of this doctrine a passage which in its proper place applies only to the sun, who is there called 'the soul of all that moves or is immovable,' an expression which is probably to be figuratively, not literally apprehended. The notion of a Soul of the world belongs, no doubt, to a period long subsequent to the composition of the Suktas. Whether their authors entertained any belief in a creator and ruler of the universe certainly does not appear from any passage hitherto met with ; but at the same time the objects of the early worship of the Hindus, the sky, the soma plant, and even the sun, are addressed in language so evidently dictated by palpable physical attributes, or by the most obvious allegorical personifications, that we can scarcely think they were inspired by any deep feeling of veneration, or of faith, or that the adoration of such mere, and manifest elements contemplated them in any other light than as types of the power of a creator. However extravagant the expressions, we can scarcely imagine them to have been uttered in earnest, particularly as proceeding from men of evident talent and observation, endowed with more than common intellectual activity and acuteness of perception."*

Professor Wilson's idea of mankind addressing prayer and praise to "obvious allegorical personifications," *knowing them to be such*, was shown to be absurd ; a right use of the historical method would have made it clear to him. No reader of the Vedic hymns can doubt their sincerity. Indra and Agni are as real to the Hindu worshipper as Zeus and the Olympian gods are

to Homer. No reasonable man entertains the belief that when Ajax and Achilles implored for celestial aid they regarded the *Dii Majores* as types of the power of a creator. They knew nothing of a creator, and the word had as little meaning for the Greeks as it has for us. Some vague and rhetorical passages from Prof. Max Müller's writings on this head were critically examined, and the paper concluded as follows:—"The Rig Veda marks the period of non-organization of Hindu society. As yet Brahm is not, and by consequence all that which distinguishes Brahminism, the division of society into castes, and the establishment of a theocracy with military auxiliaries, the invariable concomitants of theocracies. The Rig Veda brings before us people living by agriculture and pasturage, simple in their habits, naïve in the expression of their wants, blessed with much land, large families, and numerous cattle; people constantly encroaching upon the soil of the aborigines, whom they conquered, when they did not exterminate, and made slaves. That Fetichism is the religion of such primitive societies is proved by their social and religious observances. Their sacred books show it very distinctly. What is here said applies mainly to the Rig Veda, but I should have no difficulty in showing that the statement holds good also of the Yaju and Sama Vedas, though, perhaps, not to the same extent. . . . Fetichism in its turn becomes transformed into Polytheism, and instead of each phenomenon being conceived as animated by a separate will, whole classes of phenomena are represented by their appropriate deities, who are severally credited with absolute control of the woods, groves, waters, rivers, &c., &c. With the advance of knowledge (or science) these deities became fewer and fewer, until an unique deity is reached in Monotheism. Man set out with interpreting nature by the logic of feeling (Fetichism) and passing through the logic of images (Polytheism), he arrives at the logic of signs (Monotheism). That is the law of his growth, illustrations of which have been and are furnished by all aggregates of men, whether civilized or uncivilized."*

Mr. E. N. HODGES, Dr. CARTER BLAKE, and Mr. LEWIS took part in the discussion on these papers.

* The paper, of which the above is but a brief abstract, appeared in full in copies of the "National Reformer," dated respectively April 23rd, April 30th, May 28th, June 4th, June 18th, August 20th and 27th (all of 1876). I wish that I had space to acknowledge as it deserves the courtesy and liberality of Mr. Bernard Quaritch in allowing me to examine and read books of Eastern sacred lore belonging to his valuable collection of Oriental books.—J. K.

ORDINARY MEETING.

Held at 1, Adam Street, Adelphi, W.C., on Friday, 12th Nov., 1875.

C. STANILAND WAKE, ESQ., VICE-PRESIDENT, IN THE CHAIR.

The routine business having been disposed of, the following paper was read :—

THE ORIGIN OF THE ETRUSCANS AND THEIR
LANGUAGE.

BY DR. CHARNOCK, F.S.A., M.R.A.S., PRES. L.A.S.

FIRST, as to the original habitat of the Etruscans, and their name. Buonarotti, Gori, and Lord Monbodo considered the Etruscans to be of Egyptian origin. Dr. C. R. Caylus, contends for an ancient intercourse between Etruria and Egypt. To this he ascribes the progress of the Etruscans in the arts and sciences, which they had begun to cultivate even prior to their commerce; while Winckelman is of opinion that they borrowed everything from Egypt, and that the origin of science and art in Etruria dates from the time at which their commerce had its rise. Maffei, Mazzochi, and Guarnacci deduce the Etruscans from the Phœnicians. Bochart maintains that there must have been direct intercourse between the Etruscans and the Phœnicians, many of their customs and monuments being of oriental origin. But it must be noted that they might be of oriental, without being of Phœnician, origin.

The Egyptian origin was opposed by Bardetti, Pelloutier, Fréret, Adelung, and Heyne, who, differing from one another in some points, have generally contended for the northern or Celtic origin of the Etruscans. Indeed, according to some writers, they sprang from the Celtic Rhæti, and reached Italy through the Trient district about 100 years B.C. W. Von Humboldt supposes the Etruscans to be a connecting link between the Iberians and the Latins. Again, others, connecting the Etruscans with the Pelasgi, assert that at a remote period some of the Aborigines of the Caucasus settled in the fertile plains of Asia Minor, whilst others remained between the Danube and the Dnieper, and were known by the name of Cimmerii and Tauri; and that one of these tribes was the Pelasgi; that before the Pelasgi became known to the Greeks, or before they were permanently fixed in Greece, they were accustomed to appear and disappear at almost stated and regular intervals; and that from the resemblance which on that account they bore to birds of passage the early Greeks called them *πελαργοι*, i.e. storks, which word, by change of *r* to *s*, became *πελασγοι*.*

R. O. Müller and others quote the Latin habit of interchanging *r* with *s*, to support the derivation of *πελασγοι* from *πελαργοι*; from *πελω*, to till, *αργος*=*αγρος*. “Pischel, in Kuhn’s *Zeitschrift*, (vol.

* Heeren says the Pelasgi were a Phœnician colony.

xx. p. 369, 1872), says the Rev. A. H. Sayce, seems to be right in explaining *πελασγοι* from the roots which we find in Sanskrit *param*, Greek *περαν* (*περαω*, &c.) and *γα*, *ειμι*. The Pelasgi will be simply the emigrants, like the Ionians (*Ιαφοιες*, *Yavanas*), from *ya* = i-re.*

Other writers assert that the Pelasgi (who received their name from Pelasgus, the first king and founder of their nation), inhabited Argolis in Peloponnesus, which was called after them Pelasgia, and that about 1883 years B.C. they passed into Æmonia (Thessaly), and were afterwards dispersed in several parts of Greece. Some fixed their habitation in Epirus, others in Crete, Lesbos, and Italy. Through these changes of situation of the Pelasgi all the Greeks were indiscriminately called by that name, and their country Pelasgia, though properly speaking the latter term ought only to be applied to Thessaly, Epirus, and Peloponnesus. It is also stated that some Pelasgi, driven from Attica, settled in Lemnos, where they afterwards carried some Athenian women whom they had seized in an expedition on the coast of Attica. Herodotus, applying, like the rest of the Greeks, the name Tyrrheni to all the Etruscan people, makes them out to be a colony of Lydians, a tribe of the Pelasgi who were compelled by a protracted famine to emigrate from Asia under the conduct of Tyrrhenus, son of their king Atys; and who, after touching on various shores, arrived in Umbria, where they settled, and called themselves Tyrrheni. This tradition, first recorded by Herodotus, has been implicitly followed by almost all the ancient writers, among whom are Cicero, Strabo, Velleius Paterculus, Seneca, Pliny, Tacitus, Plutarch, Justin, Appian, Servius, Festus, Virgil, Valerius Maximus, Horace, Ovid, Catullus, Silius Italicus, Rutilius, and Tertullian.

Hellanicus of Lesbos, a Greek historian, nearly contemporary with Herodotus, maintained that the Etruscans were a tribe of Pelasgi, not from Lydia, but from Greece, who being expelled from their country by the Hellenes, sailed to the embouchure of the Po, and abandoning their ships, built the inland town of Cortona, and afterwards peopled the whole territory called Tyrrhenia. The same historian says also that Tyrrhenus, leader of the Tyrrheni, and Pelasgus were the same person.

After referring to the tradition of Herodotus, Dionysius of Halicarnassus, to whom we are indebted for the statement of Hellanicus, remarks that Xanthus, principal historian of Lydia, who was well versed in ancient history, especially of his own country, makes no mention either of a Lydian prince called Tyrrhenus, or of an immigration of Mæonians into Italy; or of Tyrrhenia being considered a Lydian colony; and Dionysius thinks the Etruscans were aborigines of the country which they occupied. He admits that a tribe of Pelasgi passed from Thessaly to the mouth of the Po several centuries before the Trojan war, who, directing their course to the south, aided the Etrurii in their wars with the Siculi; that subsequently they were again dispersed through disease and famine, but that a

* See Sayce, p. 56.

few still remained behind ; and being incorporated with the ancient inhabitants, bestowed on them whatever in language or customs appeared to be common to the Etrurii with the other nations of Pelasgic descent.

It will be observed that the argument rests on the authority of Xanthus ; but, as Dennis remarks, why should he be preferred to Herodotus ? They were contemporaries, or nearly so ; besides, there is a doubt of the genuineness of the works attributed to Xanthus, as Athenæus plainly shows.* Müller admits a primitive population of Etruria, which he calls, after Dionysius, the *Rasenæ* ; and he thinks there are grounds for assuming that these were mixed with a body of Pelasgian colonists from the coast of Lydia. According to Mannert, the Pelasgi being driven out of Thessaly by the Hellenes, under Deucalion, about four or five centuries before the Trojan war, retired mostly to Epirus, whence many crossed over into Italy. Here they formed an union with the aborigines, and with them invaded the territories of the Umbri, which extended at that period from sea to sea. From the Umbri they wrested the city of Cortona, with its adjacent territory, which a part of them selected as the place of their abode. The remainder moved to the south, aided their allies, the aborigines, in their wars with the Siculi, the primitive possessors of what was afterwards called Latium ; drove the latter to the southern extremities of Italy, and spread themselves over the fertile plains of Latium and Campania. In the meantime a portion of the Pelasgi expelled from Thessaly, which had not retired to Epirus, emigrated to the coast of Asia Minor. Homer makes mention of them among the allies of the Trojans, and of their capital city Larissa, so called from the city of the same name in Thessaly, their ancient capital. We learn from Menecrates of Elea, the Æolic writer, that the Etrurii had possessed themselves of the entire coast of what was subsequently termed Ionia ; and Strabo assures us that the Greek colonists which came afterwards to these shores induced the Pelasgi to look elsewhere for new places of abode. It was these Pelasgi then, says a later writer,† who migrated to Italy from the coast of Asia. A migration by the Lydians at that early period was utterly impossible, for they were as yet an *inland* people, at a distance from the shores of the Ægean, and only became acquainted at a subsequent period with maritime affairs. When these Pelasgi from Asia had reached the shores of Italy, they united with their brethren who were already in that country, and the foundation was thus laid for the Etruscan nation.

It appears from good authorities that the true name of the Pelasgi was Tyrseni or Raseni, and it will be found upon examination that the appellations Pelasgi and Tyrseni were perfectly synonymous in the ancient writers. Sophocles names the Argives, Pelasgic Tyrseni. Myrsilus asserts that the Pelasgi erected the ancient wall around the Acropolis of Athens, which is therefore styled by Callimachus, as

* Deipnos, xii., c. iii., p. 515.

† Lempriere.

quoted in the scholia to the "Birds" of Aristophanes, the Pelasgic wall of the Tyrseni.* The Pelasgi, moreover, who retired from Attica to Lemnos are called by Apollonius of Rhodes, Tyrseni; and Thucydides informs us that the Pelasgi on the coast of Thrace were the same nation with the Tyrseni who once inhabited Attica. Niebuhr† makes the Mæonians (Homeric name of the Lydians) to be Pelasgi, arguing from the name of their stronghold Larissa, which is found in all countries occupied by the Pelasgi. He at first considered the Etruscans to be a branch of the Gothic race, but was finally of opinion that the Rhætian Alps was their original country.

Müller states that no ancient author calls the Mæonians Pelasgians. "This is true," says a later writer, "but they make the Tyrrhenians Mæonians and also Pelasgians, and therefore imply, though they do not assert, the identity of the people who bore these three names."

Traditions speak of the Pelasgi as a race persecuted by the celestial powers and delivered over to infinite evils: and they are said to have wandered from country to country to escape such calamities. That in ancient times Pelasgi had settled in a large portion of Asia Minor is a matter of record. According to Herodotus, Ionians, Æolians, and Achæans were all originally Pelasgic tribes. In Asia Minor the Pelasgi became mixed up with Carians, Phrygians, and Lydians.‡ Rawlinson says the Indo-European character of the Phrygians is apparent from the remnants of their language, whether as existing in inscriptions, or as reported by the Greeks; and that many common forms were so like the Greek as to attract the attention of the Greeks themselves. He says further, there are sufficient grounds for concluding that the Pelasgic and Greek languages differed less than Greek and Latin, the Pelasgic being an early stage of the very tongue which ripened ultimately into the Hellenic. And a late writer remarks, "to the Greeks transplanted into Asia we are indebted for the ancient specimens we possess of Greek poetry and historical composition. The Iliad and Odyssey, if we look upon them as the works of one individual or of many hands, must be regarded as the compositions of Asiatic Greeks."

Apart from their name there is further evidence that the Etruscans were a Pelasgic colony from Lydia. It is certain

* Another writer says, "We find in Greece a people bearing the name of Pelasgian Tyrrheni, driven from Bœotia by the Dorian emigration, appearing as fugitives in Athens, and thence betaking themselves to Lemnos, Imbros, and Samothrace, where, as well as on Mount Athos, they remained in the historical times. The name Tyrrhenian is applied to the Etruscans in Hesiod (Theog. 1015); in the Homeric hymn to Bacchus, to this people of the Ægean; but it is evident that they were not the Tyrrheni of Italy by whom the god was carried off. The pirates intended to carry him to Egypt or to Cyprus, not to Italy; and from other sources it appears that the mythus was a Naxian legend. Ovid (Met. iii. 777—900) relates it at great length."

† See Ed. Rev., vol. i., p. 376.

‡ The Meander separated Caria from Lydia, which was bounded on the east by Phrygia.

that under the successors of Alexander the towns of Asia Minor and of Syria contained a large population familiar with the Greek tongue. Herodotus connects the Lydian race with the Mysians and Carians. The Lydians therefore, says Rawlinson, must, unless additional evidence can be provided, be regarded as an Indo-European people, and the Semites of the Continent must be considered to have reached at farthest to the eastern borders of Caria.

The Etrurii, as being descended from a Lydian colony, are often called Mæonidæ. (1) Thrasymenus, a lake near Pelusium in their country is called Mæonius Lacus.* (2) The term Mæonia is sometimes used for Etruria, because the Etruscans were said to come from thence.† (3) Ovid represents the Tyrrheni as Mæonians.‡ (4) Hence “patria Mæonia est.”§ (5) Again, Lydius || was an epithet applied to the Tiber, because it has its source on the Apennine mountain in Etruria, and flows into the Etruscan sea, or because it divides the Etruscans from Latium,¶ and the term Lydia is used for Etruria.**

Seneca (Consol. ad Helv. vi. 9), says, “Tuscos Asia sibi vindicat.”

Dionysius applies the name Larissa to the Etruscan city of Vulturum. Larissa was the name of several towns. The most celebrated was Larissa on the river Peneus in Thessaly, and not far from Tempe. Among others were Larissa of Phthiotis in Thessaly (L. Cremaste); Larissa in Hisp. Tarracon. in the territory of the Edetani (Sedetani); Larissa of Æolis, in Asia Minor; Larissa in Troas, and Larissa of Seleucis in Syria, between Epiphanea and Apamea.

* Conf. Virg. *Æn.* xi. 759; ii. 781, and 216.

† Sil. Ital. 15. v. 35.

‡ Conf. Virg. *Æn.* viii. 499.

§ Met. iii. 577—700.

|| Met. iii. 583.

¶ In Virg. *Æn.* ii. 779, sq., we find Lydius for Thybris; in vii. 242, Tyrrhenum ad Thybrim, and in vii. 663, Tyrrheno in flumine.

** Conf. Virg. *Æn.* ii. 781, viii. 479. Mæonia was a country of Asia Minor; according to some the same as Lydia. Others say only a part of Lydia, namely, the neighbourhood of Mount Tmolus and the country watered by the Pactolus was known by the name of Mæonia. Callimachus (*Hymn. in Del. vers.* 250) gives the Pactolus the surname of Mæonius. The rest on the sea-coast was called Lydia. It probably had its name from the river Mæon (Conf. Stephanus). But according to Claud. in Eutrop. i. 246, the Mæones were so called from their king Mæon. “Mæonia” is sometimes used for Lydia itself. Mæonia or Meonia (*Μῆονια, Μαονια*) is also the name of a town of Mæonia in *Notit. Hieroc. et Episcopat.* on the Coganus. The term Mæones was afterwards applied to the Lydi, according to Herodotus. In Strabo the name is *Μαίονες*; in Herodotus (vii. 74), *Μῆονες*. One author says the inhabitants of Lower Lydia were also called Mæonians, and they named Lydi those who inhabited Higher Lydia. Mæon was also the name of a Theban and priest of Apollo. Again, according to Pliny (H. N. VII., sec. 7), a people called Mæones lived near the Don (*Tavais*). Conf. also, *Æn.* ix. 11. Sil. iv. 721. Virg. lib. viii. l. 478.

“Haud procul hinc saxo incolitur fundata vetusto
Urbis Agyllinæ sedes, ubi Lydia quondam
Gens, bello præclara, jugis insedit Etruscis.”

According to Tacitus,* the Sardi-ans insisted on their affinity to the Etruscans. After stating that Tiberius, in order to divert the popular talk, assiduously attended the senate, and heard for many days ambassadors from Asia, who were contending, "in what city should be built the temple lately decreed;" and also that the dispute was confined to Sardis and Smyrna, says, "Sardiani decretum Etruriæ recitavere, ut consanguinei : nam 'Tyrrhenum Lydumque, Atye rege genitos, ob multitudinem divisisse gentem : Lydum patris in terris resedis-
 se; Tyrrheno datum, novas ut conderet sedes; et ducum e nominibus indita vocabula, illis per Asiam, his in Italia : auctamque adhuc Lydorum opulentiam, missis in Græciam populis, cui mox a Pelope nomen : ' simul 'litteras imperatorum, et icta nobiscum fœdera bello Macedonum, ubertatemque fluminum suorum, temperiem cœli, ac dites circum terras ' memorabant."

"The first recited a decree of the Etrurians, which owned them for kinsmen : for that Tyrrhenus and Lydus, sons of King Aty, having divided their people because of their multitude, Lydus remained in his native country, and it became the lot of Tyrrhenus to find out a fresh residence ; and by the names of these chiefs the parted people came afterwards to be called Lydians in Asia, Tyrrhenians in Italy. The opulence of the Lydians spread yet further by their colonies sent under Pelops into Greece, which afterwards took its name from him. They likewise urged the letters of our generals ; their martial leagues with us during the war of Macedon ; their fertilizing rivers, temperate climate, and the richness of the surrounding country."

Festus, xvii. says, "E [trus] corum, quia Sardi appellantur, quia Etrusca gens orta est Sardibus ex Lydia : Tyrrhenus enim inde profectus cum magna manu eorum occupavit eam partem Italiæ, quæ nunc vocatur Etruria." And at xviii. he says, "Turrhenos Etruscos appellari solitos ait Verrius, a Turrheno duce Lydorum, a cujus gentis præcipua crudelitate etiam tyrannos dictos." Silius Italicus, in mentioning their city, speaks of Lydians established in Etruria as *Mæonia Gens*. "Mæoniæque decus quondam Vetulonia gentis."

Müller says, the Mæonians, who are always distinguished from the Lydians, were likewise Tyrrhenians, and are so called by Ovid in the fable of Bacchus ; and that these were the Tyrrhenians that gave their name to the western coast of Italy and to the Tyrrhenian Sea, and whom the Romans called Tusci.

Horace, who refers to the Etrurian origin of Mæcnas,

"Tyrrhena regum progenies, tibi
 Non ante verso lene merum cado
 Cum flore, Mæcnas, rosarum, et
 Pressa tuis balanus capillis
 Jam dudum apud me est." †

* Annals, lib. iv. c. 55.

† C. iii. 29, l. i. Cf. C. i. l. i. : iii. 29, l. 1 ; Serm. i. v, 6.

says also in another place *—"Non, quia, Mæcenas, Lydorum quidquid Etruscos incoluit fines," &c.

I possess no information as to the physical character of the Pelasgi. Whatever it may have been there is no doubt that a long residence in Lydia, and perhaps intermarriages with the ancient inhabitants would tend to create a considerable alteration in their physical conformation; and the same would hold with reference to their subsequent settlement in Italy and becoming mixed up with the ancient peoples there. Indeed some of the Etruscan skulls have a greater resemblance to the old Italic skull than to that of the Greek.

Professor K. O. Müller says the proportions observed in the figures represented upon the coverings of sarcophagi, in painted tombs, and on ceramic productions indicate a race of small stature, with great heads, short thick arms, and a clumsy and inactive conformation of body, the '*obesos et pingues Etruscos*.' They appear to have possessed large round faces, a thick and rather short nose, large eyes, a well-marked and prominent chin." But as I have before hinted, the Etruscans were probably a mixed race. Indeed Milne-Edwards observed among the peasantry of Tuscany, in the statues and busts of the Medici family, and in the bas-reliefs and effigies of the great men of the Florentine Republic, a type of head characterized by its length and narrowness, by a considerable frontal development, by a long sharp-pointed and arched nose. Professor L. Calori gives the measurement of two skeletons from the Villanova sepulchre, which had belonged to individuals of the male sex who died in the vigour of life, and especially of the skull of one of them. The length of one of the skeletons was 5 feet 1 inch, that of the other 5 feet 3.6 inches, when reduced to the English standard. His further remarks are principally directed to oppose the impression derived from the prognathism of the crania, that the Etruscans were allied to the Ethiopic races. Dr. Nicolucci gives a comparative table of some measurements of the skull of one Etruscan from Veii, of a Volcian from Aquino, of three Oscans from ancient Capua, Cuma and Pompeii, of one of the Sarrastes from Nuceria, and of a modern Neapolitan and Soranan.†

The Pelasgic origin of the Etruscans is said to be supported even by the number of their cities, which they originally founded, namely, twelve, the Pelasgi in Achaia and the Ionians in Asia Minor having

* L. I; Sat. vi. l. 1.

† Conf. *Thesaurus Craniorum*, by Joseph Barnard Davis, M.D., F.S.A., 1867, Lond., 8vo., referring to *Di un Sepulcreto Etrusco scoperto presso Bologna*, 1854, 4to.; *Intorno ad Altre settantuna Tombe del Sepulcreto Etrusco*, Cenni del Conte G. Gozzadini, 1856, 4to. Cuvier, *Règne Animal*, par Milne-Edwards, pl. 1, fig. 1; *Intorno ad un Cranio Etrusco*, Memoria letta al Secondo Congresso Italiano, dal Dr. Antonio Garbiglietti, con Tav., Nicolucci; *Razze Umane*, vol. i., tav. ix.; *Di un singolare anomalia dell'osso jugale ossia zigomatico Noterella*, Torino, 1866; Maggiorani (Prof. Carlo) *Saggio di Studi Craniologici sull' antica Stirpe Romana e sulla Etrusca*, Roma, 1858; con tav., 4°. Von Baer, *Ueber den Schädelbau der Rhätischen Romanen*, 1859.

built the like number. Then again the Lydians were the first to introduce the art of coining gold and silver for facilitating trade. The first Etruscans not only introduced the use of money into Italy, but afterwards introduced the copper and silver coinage; and Servius is quite wrong in stating that the money of Italy was first made at Rome. Scenical amusements, sports, games, dances, masks, pantomimes and wrestlers, which were derived by the Romans from the Etruscans, are traditionally of Lydian origin. The first actors that appeared upon the Roman stage, were sent from Etruria. But whence was the art introduced into Etruria? Livy (vii. 2. xxxix. 6.) says "*ludiones ex Etruria aditi: quia hister Tusco verbo ludio vocabatur;*" and there is no doubt that Lydia produced the best dancers. The word *ludius* (*i. q. ludio*) was used for a stage-player, actor, especially one who dances or uses gesticulations to impress his meaning; *ludus* is rendered a game: hence *ludi*, games, plays, shows, *ludo*, to play, *i. e.*, to play a game for pastime, to sport, frisk, frolic, to represent anything in sport, to mock, make sport of, make game of. The word *ludius* is used for *lydius*, *i. e.* one from Lydia.

Müller says the Tuscans had no reputation for song or poetry along with their music; the only theatrical accompaniment seems to have been the dance, in gay festive robes, and with much gesticulation. The performers were called "*Ludi*" or "*Ludiones*," but their native name was "*Histriones*:" that some of their accessories of a Bacchic character may have been borrowed from Magna Græcia by the Southern Etruscans, and through them have become disseminated amongst the Central States.

The Lydian or Mæonian origin of the Etruscans seems also to be confirmed by their musical instruments. The flute was unknown to, or at least was not in use among the Greeks in the Heroic and Homeric age. The musical instrument then in vogue was the lyre. The flute came into Greece with the worship of Bacchus, which passed from Lydia and Phrygia into Thrace. The double flute is mentioned by Herodotus (i. 7) under the name of *ἀνδρειος* and *γυναικεῖος*, as used by the Lydians, in war. This flute, which resembled the oboe in form and sound* as we know both from ancient authors and from monuments, was in use among the Etruscans; and the Romans not only borrowed their flute music from them, but generally employed at sacrifices, festive dances, and funerals an Etruscan flute-player.

*Ir flavit cum pinguis ebur Tyrrenus ad aras,
Lancibus et pandis fumantia reddimus exta. — Georg. ii. 193.*

*Rudem præbente modum tibicine Tusco,
Ludius æquatam ter pede pulsat humum. — Ov. A. Am. i. 111.*

Pliny ascribes the invention of the double-flute to the Phrygian Marsyas, and another author, to the Phrygian Hyagnis; thus showing, says Müller, that its use was very common in Asia Minor from remote

* In this flute the left hand played a treble to the bass of the right hand.

times. Alyattes set out for war with male and female fluters. The flute-players in Greece were almost all Asiatics; so that we must regard this instrument in Etruria, as one of the connecting links with their real or legendary cradle in Lydia. Indeed, the Greeks called the instrument the "Lydian flute;" and in Etruria it was consecrated to Minerva. A learned writer, referring to the double-flute, says, it is very improbable that such a coincidence between the Etruscan and Asiatic customs should be accidental: and no more probable explanation of it can be given than by admitting that the Tyrrheni were really a colony of Pelasgi from Lydia. Again, one tradition ascribes the invention of the trumpet to Tyrrhenus, the Lydian colonist of Etruria.* The trumpet appears also to have been introduced from Lydia.

Lucilius, in his scorn of Roman luxury, speaks of the royal robes with their gold and purple borders worn by the Roman magistrate, as the work of the hated *Lydians*, meaning thereby to denote the Etruscans. According to Müller, the *toga*, called also *tebenna* and *chlamys*, which, by-the-bye, was the common national robe, was not only worn by the Lydians, but also by the Pelasgi; and he says also that the close-fitting tunic worn under it by the Lydians and the Pelasgi was the national garb of the Etruscans. Tertullian says the Lydians received the *toga* from the Pelasgi; the Romans, from the Lydians. Perhaps, says Dennis, he took this tradition from some poet, who used the word Lydian for Etruscan.

Dionysius himself, after having stated that there was no resemblance whatever between the customs of the Etruscans and Lydians, points out that the purple robes worn in Etruria as *insignia* of authority, were similar to those of the Lydian and Persian monarchs, differing only in form; the oriental robe being square, the Etruscan *toga* or *τηβεννος*, which answered to it, semicircular.†

Classical writers speak of the Etruscans as given to all sorts of sensual pleasures. The manners of the Lydians were corrupt even to a proverb. The people of Sardis especially bore an ill repute for their voluptuous habits of life; chastity was little valued by either people. The young women of Etruria obtained their dowries by prostitution.‡ The Lydians prostituted their daughters, who had no other fortune but what they earned in this way. The singular custom of the Lycians (neighbours of the Lydians) of tracing their descent by the maternal line obtained also among the Etruscans alone among the nations of antiquity. Dennis thinks the Etruscans must have derived this custom from the East, as it was neither

* See Sil. Ital.; Pausan.; and Serv. ad Virg. Mr. Dennis says the musical instruments in which the Etruscans excelled were introduced from Asia Minor; the double-pipes from Phrygia; the trumpet from Lydia.

† The eagle, which Rome had as her standard, and which she derived from Etruria, was also the military ensign of Persia. (Dennis.)

‡ Conf. Herod. i. 93, and Plaut. Cistell. ii. 3. 20.

practised by the Greeks nor by the Romans. The only difference in the custom seems to have been that the Lycians traced their descent through the maternal line, to the total exclusion of the paternal, a fact recorded by Herodotus, and verified by modern researches,* whilst the Etruscans, being less purely Oriental, made use of both methods.† Another custom which assimilated the Etruscans to the people of Asia Minor was that of sharing the festive couch with their wives. Herodotus‡ mentions that the Caunians, a people of Asia Minor, were accustomed to hold *symposia*, or drinking-bouts with their wives and families.§ In their customs, &c., the Lydians also resembled the Greeks. They were good horse-men; and under Croesus and some of his predecessors a very war-like people. Dennis says the analogy of the Etruscan customs to those of the East did not escape the notice of ancient writers; and it may be noted that the Mysians, Lydians, Carians, Lycians and Phrygians being cognate races, inhabiting adjoining lands, what is recorded of one is generally applicable to all; and a late writer|| says the ascendancy of the Lydian dynasty in Asia Minor, with its empire, real or fabulous, of the sea, during its flourishing ages, would naturally impart to the tradition (of the origin of the Etruscans) a Lydian form. In any attempt therefore to illustrate the Etruscan origin or manners from Asiatic sources, our appeals may safely be extended to the neighbouring, whether kindred, or merely connected races.

Again, the Tyrrheni were a naval power; and in the time of the Argonauts, a maritime power. "They were well versed in all the arts of war and peace, and from them the Romans derived those arts and sciences that paved their way to the empire of the world." After the Phœnicians, the Carthaginians, and the Greeks, no people of antiquity obtained such success in commerce as the Etruscans. They also established colonies in several parts of Europe. Although the trade of the Lydians is nowhere particularly mentioned, it was no doubt considerable on account of the advantageous situation of the country, and especially under their later kings when Lydia was in the meridian of its glory.

Although the Etruscans had several deities peculiar to themselves, they nevertheless worshipped the Greek and Roman gods, and they believed in one Supreme Being whom they called *Jave* or *Jove*. In their divine service and sacred mysteries the ancient Etruscans differed in some points from the Greeks, yet in others they agreed with them, and they communicated their own mysteries to the Romans long before the latter had had any intercourse with the Greeks. The Lydians worshipped Jupiter, Diana, and Cybele at Magnesia. Dennis shows Greek art in Etruscan monuments, and mentions the rape of Helen as occurring on Etruscan urns. He says

* Herod i. 173, and Fellows' *Lycia*, p. 276.

† Conf. Dennis, vol. 1, xiii. and p. 133, n. 3.

‡ P. 172.

§ Caunus was the name of a city of Caria, at the foot of Mount Tardelus.

|| Quar. Rev., No. cli.

further that the tombs of Lydia have analogies to those of Etruria. After stating that the language and the character in which it was written have very marked Oriental analogies, he says, "but, in their tombs and sepulchral usages the affinity of Etruria to Lydia and other countries of the East is most strongly marked; and it is to be learned not only from extant monuments, but from historical records. Müller asserts the unmistakeable connection between the civilization of Etruria and Asia Minor. Speaking of the valley of tombs (*Castel d'Asso*), Dennis says of one of the tombs (externally the largest of all), "the sarcophagi have bas-reliefs or other monuments, and in their general form are not unlike the stone coffins of early England. They are about seven feet in length. The penthouse form of the lid of these sarcophagi is said to be that used in those of Lydia and Phrygia."* Of *Il Mausoleo* on the Montarozzi, he says, "Tumuli we know were in use among the Lydians, and the sepulchre of Alyattes (not far from Sardis), king of Lydia, father of Cræsus, described by Herodotus (*magna componere parvis*), was very like the *Mausoleo* of the Montarozzi, the basement being composed of large stones, the rest of the monument being a mound of earth."† Of the tomb of *La Merareccia*, he says, "the walls of the first chamber have been covered with bas-reliefs, now scarcely traceable, save in a frieze beneath the ceiling, where animals—apparently wild beasts—are represented in combat, or devouring their prey, a frequent subject on Etruscan vases and bronzes of archaic character. This subject is very common on early Greek works of art—the Doric vase, to wit, and is also found on Lycian and Asiatic Greek monuments;" and Dennis refers to Fellows' Lycia, the reliefs from Xanthus, now in the British Museum; and those from Assos in Mysia, now in the Louvre. He thinks the tumulus of *La Cucumella* bears a striking resemblance to that of Alyattes, although the latter was six or seven times as large as the former. "In truth, it is in character and arrangement alone, not in size, that the former is to be regarded as a type of Lydian tombs. The five *termini* on the Lydian monument are not clearly and definitely described, but the inscriptions on them show an analogy to the *cippi* of the Etruscans and Romans; and as they could not, consistently with the rest of the monument, have been on a small scale, the probability is that they were either cones surmounting towers, or the terminations of such towers, rising above the body of the mound; a probability heightened almost to a certainty by the close analogy of this and other Etruscan monuments. It is a remarkable fact that the tomb of Por-senna at Clusium, the only Etruscan sepulchre of which we have record, bore a close affinity to the only Lydian sepulchre described by the ancients, the square merely taking place of the circular; for it is said to have had five pyramids rising from a square base of masonry, one at each angle, and one in the centre, as shown by Varro."‡ Dennis also says there is an analogy between the sepul-

* Conf. Stewart, p. 5.

† See Herod. i. 93.

‡ Apud Plin. xxxvi. 19. 4.

chral monuments of Lycia and Etruria. The union of the pipes and lyre in ancient music, as exemplified in the cemetery of Tarquinii and in other Etruscan tombs is frequently mentioned by classic writers. Horace* gives us to understand that a Doric song accompanied the lyre, and a "barbarian," *i.e.*, most probably a Lydian, the pipes, as he elsewhere † says "Lydis remixto carmine tibiis."

Again, another writer remarks that the most perfect works of Etruscan art had the same rigidity and want of living and varied expression that characterized Grecian sculpture before the time of Phidias and Praxiteles.

Dennis says, "The Etruscan alphabet wants the Β, Γ, Δ, Ε, Φ, Η, Ο, and Ω, and in the custom of writing from right to left, and of frequently dropping the short vowels, the Etruscan bears a close Oriental analogy. Indeed, it is clear that like the Pelasgic, the Greek, and other kindred alphabets, this had its origin from Phœnicia;" and in a note he says, "Whether these characters came directly from Phœnicia into Etruria, or were received through Greece, is a disputed point. Müller ‡ maintains the latter. Mr. Daniel Sharpe declares it may be proved from a comparison of the alphabets that the Etruscans derived their characters from Asia Minor, and not from Greece.§ The resemblance indeed of the Etruscan alphabet to the Lycian is striking, still more so that which it bears to the Phrygian, such as is seen on the tombs of Dogan-lû.||

And now as to the origin of the name or names of the Etrusci. Schlegel, who rejects the Mæonian theory, and regards the Etruscans as an immigrating nation of the same family with the Pelasgi, says the appellation must have been Turseni (whence Tusci), from *tus, turis*,¶ signifying the offerings of the priests. Wachsmuth thinks the names Ras-ena and Ræt-ia related.** The country occupied by the Etruscans was variously called by the Romans Etruria, Hetruria, Tuscia, Thuscia, by the Greeks *Τυρρηνια*. It is also found written Eturia and Ature. The people were designated by the Romans Tyrrheni and Etrusci. The Greeks called them ΤΥΡΡΗΝΟΙ, the Ionic and Attic form being ΤΥΡΕΗΝΟΙ. Modern Lexicons give *Τυρρηνίς*, *Τυρρηνός*, a Tuscan; *Τυρρηνοί*, Tuscans. According to Dionysius, the Etruscans called themselves Rasena.†† Niebuhr says their native name was *Ras* or *Rus*, and that *ena* is a Latin termination. The Rev. Isaac Taylor,‡‡ who considers the Etruscans to be the Turanians of Turkestan, called Tartâr by their neighbours the Persians, and Tur-seni by their neighbours the Greeks, says, "The Etruscans called themselves Rasenna, signifying tribes-men; from *ras*, tribe or race; *enna*, men." He thinks *Τυρρηνοί* a corruption of

* Epod. ix. 5.

† Od. iv. 15. 30.

‡ Etrusk. iv. 6. 1.

§ Fellows' Lycia, p. 442.

|| See Walpole's Travels, and Stewart's Lycia and Phrygia.

¶ *Tus, thus, thuris*.

** Wachsmuth and Creuzer think the Etruscans were a colony from Mæonia that conquered the original Sicilian and Umbrian inhabitants of Etruria.

†† Conf. Dionys., Ital. s. 21.

‡‡ Etruscan Researches, Lond. 1874.

another Etruscan word, probably Tursenna or Turkhenna, meaning simply "Turco-men." Scaliger derives the appellation Etruria from *ἔθρυς*, Cretan form of *ὄρος*, mountain, Etruria being mountainous. Bochart mentions a place named *Πίσυρα*; and there were two cities named *Παισερα* in Mesopotamia, and a very ancient city called Resen between Nineveh and Calash in Assyria.*

Now, if the original name of the people was Tauri, Turri, or Tyrrhi, it would easily corrupt to *Τυρρηνοί* and *Τυρσηνοί*; or the *Τυρρηνοί*, *Τυρσηνοί* may have been so called from some locality where they dwelt; from *τυρρίς*, *τυρσις*, a town, defence, fortification, rampart, castle.† From *τυρσις* we should get Turseni, Thursi, Thusci, Tusci; and from *τυρρίς*, *τυρρηνοί*, Tyrrheni; and in time, Tyrhei, Turhei, Trurii, Etrurii (Hettrurii). This local derivation of the name and the Lydian origin of the Etruscans are confirmed by a late writer,‡ who says: "On the coast of Mæonia or Lydia was a place named *Τυρρα*, from which Müller and also the Abbé Sevin § deduce the name Tyrrheni; in all probability radically the same with Torrhebian, the name borne by the southern district of Lydia. In Rawlinson's map *Τυρρα*, or rather Tyrrha, is not placed on the coast, but stands a little S.E. of Larissa, and N. of Ephesus, at the foot of the Mesogis Mounts. Some maps give also a Tyrrha in Lycia, but this may be a mistake.¶ I take it also that *Τυρρα* may be etymologically the same with *τυρρίς*, *τυρσις*, or with Mount Taurus in Pisidia, from the root of Tyre (the Phœnician city), i.e. *רצו* *רצ*, a rock.

The name *Rasena*, about which so much has been conjectured, is doubtless merely a metathesis of *Tyrseni*: thus, *Tyrseni*, *Turseni*, *Tarseni*, *Ratsena*, *Rasena*. In the Cornish dialect *tr* softens down to *r*. Conf. the proper names Refry for Trefry, Renfry for Trenfry; Refrawell for Trefaul; Retallack for Tretallack.

And now to the Etruscan language. Giambullari, in the sixteenth century, endeavoured to trace it to the Hebrew, and M. Judas has since followed in his wake; it has also been derived from Egyptian

* Gen. x. 12.

† Dionysius says the Greeks called the Raseni, *Turseni*, from their *τυρσις* or fortresses, and *Tyrrheni* from their turreted habitations, or from some great prince. The Romans called the people *Etruscus*, from their country Etruria, and *Tuscus*, from the pre-eminent excellence of their frankincense and sacrifices; *θυσοκοός* being Greek for a sacrifice, whence Lat. *thus* for "frankincense." Fabretti gives *ΤΥΡΣΙ*, *turris* apud Tyrrhenos.

‡ See *Edin. Rev.*, vol. l., p. 376 (1836).

§ *Mem. de l'Ac. des. Inscr. v.*

¶ Rawlinson says the country known to the Greeks as Lydia was anciently occupied by a race distinct, and yet not wholly alien from the Lydian, who were called Mæonians. The people were conquered by the Lydians, and either fled westward across the sea, or submitted to the conquerors, or possibly in part submitted and in part fled the country. Secondly, from the date of this conquest or at any rate from very early times, Lydia was divided into two districts, Lydia Proper and Torrhebia, in which two distinct dialects were spoken, differing from each other as much as Doric from Ionic Greek. It is highly probable that the Torrhebians were a remnant of the more ancient people, standing in the same relation to the inhabitants of Lydia Proper as the Welsh to the English, or still more exactly as the Norwegians to the Swedes.

and Sanscrit. Schlegel and others are for a Greek origin. Lanzi states that in his day, besides the three classical languages, the Arabic, Coptic, Chinese, Celtic, Basque, Anglo-Saxon, Teutonic, and Runic had been in vain consulted for the key of the Etruscan. Micali thinks that assiduous research would show affinities between the Etruscan and the ancient Illyrian, of which traces might be found in the language of the Skippetars (Skipetari?)

A writer in *Mémoires des Inscriptions et Belles Lettres*, says, "the interpretations which some learned men have pretended to give of the Etruscan inscriptions might be proved to have something in common with any language in existence, the Armenian, Basque or Mexican." Orioli, Inghirammi, and Niebuhr maintain that there is no ground for the Greek origin, and Niebuhr recognises the remains of Etruscan in the dialect of the Grödner Thal in Tyrol; and Müller,* notwithstanding his opinion as to the origination of the Etruscans themselves, thought that in some secluded valley of the Grisons or of Tyrol a remnant of the old Rhætian dialect might be discovered which would serve as a key to the Etruscan language. He adds that Hormayr held the Surselvisch to be Etruscan.

Sir W. Betham traces Etruscan to the Irish; Mr. Ellis to the Armenian.† The Rev. A. H. Sayce says, "in spite of many strange-sounding Etruscan-like local names—Veltins and the like—all the researches of Freund and Mr. Ellis have failed to discover a single Etruscan word in the modern idioms of the Romansch and Ladin. Earl Crawford and Balcarres‡ is of opinion that Etruscan was a Japhetan, Aryan and Teutonic speech, whatever that may be. The only evidence in favour of Lord Crawford's theory is the apparent affinity between the words Balteus and Lucumon hereafter referred to, and the terminal *ls* in *chls* (I say the termination is *chls*, not *ls*), and certain Mæso-Gothic words ending in two consonants; such, for instance, as *wulfs*; which by-the-bye is probably derived from *vulpis*. The Rev. Isaac Taylor maintains that the Etruscan language is of Turanian origin, whatever that may be; and in order to carry out his theory, endeavours to show that some of the words agree with those of the dialects of the Kot-Yenisei and the Yenisei-Ostiaks, which may be classed under Finnic and Samoyedic, and also with modern Turkish. Now, the Osmanli-Turkish, although based upon Tatar, is made up to a great extent of Persian and Arabic; and has even borrowed words from the Greek and other languages; and, as it happens, most of the words which Mr. Taylor traces to Turkish are of Arabic or Persian origin (one is Phœnician), neither of which can be classed under the term "Turanian." Niebuhr§ says further: "that among all the Etruscan words of which explanations have been pretended, only two—*avil-ril*—rendered 'vixit annos,' have been really

* Etrusk. Einl. iii. 10.

† Ellis (Robert), *The Armenian Origin of the Etruscans*, Lond., 1861; 8vo.

‡ *Etruscan Inscriptions*, 1873.

§ Rom. Hist.

explained; and of these Müller assures us that *avil* does not signify 'vixit,' but 'ætatis.' The remains of the Etruscan consist of a small number of words preserved by some ancient writers, who have frequently endeavoured to give their signification, and of a great number of inscriptions discovered at different epochs." Dr. Birch refers the Etruscan to the class of tongues of the extinct type; and he says the actual keys to the language are bilingual inscriptions in which the Etruscan has been accompanied by a Latin interpretation, for no Greek one has been discovered; that they are of the Roman period, or about the first century, and that the keys in question open very few locks."*

A posthumous work of the Jesuit Bardetti, entitled "*Della Lingua de' Primi Abitatori dell' Italia*," published in 1772, gives the following list of Etruscan words with the authorities for the same. Andas, the north wind; Antar, an eagle; Burros, a cup; Damnos, a horse; Druna, head or chief; Gapos, a vehicle or chariot; Hister, a player; (*Hesychius*) Camillus, a name of Mercury; Mantus, a name of Pluto (*Servius*); Cupra, a name of Juno (*Strabo*); Histrio, Latin; Istorio, Italian, a history; Iduare, to divide (*Macrobius*); Induare, Italian, to part in two; Lucumon, a prince (*Dionysius*); Subulo, a flute player (*Festus*). Bardetti says Maffei had given a list of sixty-nine, and Mazzochi of sixty-two words; but that he Bardetti had little confidence in either; and, says Welsford, "perhaps of those he has given himself it would be difficult to prove that a single word was peculiar to the Etruscans."†

Dennis‡ gives the following as the only remains of the Etruscan, together with their generally accepted meanings:—Æsar, *Deus*; Agalletor, *puer*; Andas, *Boreas*; Anhelos, *Aurora*; Antar, *aquila*; Aracos, *accipiter*; Arimos, *simia*; Arse verse, *averte ignem*; Ataison, *vitis*; Burros, *poculum*; Balteus, Capra, Cassis, Celer, as in Latin; Capys, *falco*; Damnus, *equus*; Drouna, *principium*; Falando, *cælum*; Gapos, *carrus*; Hister, *ludio*; Iduare, *dividere*; Idulus, *ovis*; Itus, *idus*; Læna, *vestimentum* (doubtful); Lanista, *carnifex*; Lar, *dominus*; Lucumo, *princeps*; Mantisa, *additamentum*; Nanos, *vagabundus*; Nepos, *luxuriosus* (doubtful); Rasena, *Etrusci*; Subulo, *tibicen*. Dennis's list, in which three of the words given by Bardetti (viz., Camillus, Capra and Mantus) are omitted, comprises only thirty-three words, one of which, Rasena, is a proper name. It will be observed too that the orthography of some of the words is different. Lanzi, Lepsius, Hesychius, Macrobius, Fabretti, Taylor, Birch, Welsford, Ellis, and others give many more words; and if family names are included, the number of Etruscan words would probably amount to several hundred. The following epitaph from Maffei will give a few more words:—Ramthn Matulnei sech Markes Matulm-puiam Amke Sethres Keis-ies kisum tame-u Laf-nask

* Athen. 20 June, 1874.

† Welsford (H.), *Mithridates Minor*, Lond. 1848; 8vo.

‡ Dennis (Geo.), *The Cities and Cemeteries of Etruria*, Lond., 1848, 8vo., vol. i. p. xlv.

Matulnask klalum ke-s-kiklenar-m-a-avenke lupum avils-achs meal-chlsk Eitvapia me.*

The following words are not found in either of the lists given by Bardetti or Dennis. They do not embrace proper names; and it will be hereafter seen that some of them are merely inflections.

Aisoι, aivil, akil, anken, ca, cealchls, cehen, cei, cethu, cezpalchals, ci, ciem, ciemzathrums, cis, clen^s, clen^si, clensi, eca or eka, esals, etve, fuius, gnis, hen, hinthial, huins, huth, huths, ki, kulmu, leine, lupu, lupum, machs, maris, mealchls, muvalchls, naper, phruntac, pu, pui, puia, puia^c, puia^k, puialisa, puil, sa, sas, sranczl, semphal, chls, sitmica, suth, suthi, suthi, suthic, suthil, suthin, suthiti, sulhilt, suti, sutna, tarsu, tenas, tenthass, tesne, tesnteis, thapirnal, theke, thimrae, thu, thusiur, thunesi, tivrs, trutnut, tursis, tasua, usil, vanth, varnalisal, vecu, via, vorsus, zal, zathrums.

In the Etruscan alphabet the forms of many of the letters resemble those of the most ancient Greek which were introduced by Cadmus; others are like the Phœnician or ancient Hebrew. The Etruscans used also some letters which the Greeks added to their Phœnician alphabet. They had two letters to represent S, one resembling the Roman S, and the other the Greek M. Fabretti always renders the latter emphatically in Roman characters: thus *Suthi*. This M would seem to represent a Greek Σ. The writing is usually, but not always, from right to left; and some words are written in the modern Greek character. I do not consider it absolutely necessary to show that the Etruscan language in particular is derived from some other language. If one nation can make for itself a language, I do not see why another nation cannot do the same thing. To show that a language has derived words from one or more languages, and to account for the base of a language, are quite different things. All the Celtic languages have borrowed largely from Greek and Latin, but there is nothing to show that the base of these languages is derived from any other language. The same may be said of the Basque, more than half of whose vocabulary may be traced to Greek or Latin. The Malay contains a good deal of Arabic, and words from Persian, Hindu dialects, Javanese, and other languages; but the base of the Malay cannot be accounted for. Even the Sanscrit has many foreign words, but there is no reason to suppose that its groundwork is derived from any other language. I take it that the Etruscan, like the Basque, is an original language; at all events, there is no evidence to the contrary. It is distinct from the Umbrian, its nearest neighbour, though they have many words and inflections in common. The resemblance in question appears in the Eugubine Tables.†

The Etruscan has many words which agree with, or have been

* Conf. Lanzi; also Mus. Etrusc., tom. iii., tav. vii., p. 108.

† Brass tablets with inscriptions in very ancient and undecipherable characters discovered at Gubbio (the ancient *Inguvium*), in the States of the Church, in a cavern under a field.

borrowed from, the Greek. Its kinship with the latter is shown in the well-known legend given by Lanzi, "*Mi kalairu fuio*" = "*εμι καλαιρου Φυιος*." It has many words from or related to the Latin, and contains two or three of Phœnician, Hebrew, or Persian origin, and perhaps a few from other languages. The proportion of Greek to Latin words is about forty-two to twenty-seven. The masculine endings in *us*, *os*, *is* are wanting, although *us* is found as a genitive. The short vowels are omitted. In borrowing from the Greek, masculine nouns ending in *us* become *e*, as Peleus, Pele; Tydeus, Tute. Most of the indigenous names end in *e* or *a*. Greek feminine nouns in *η* become *u*, *ai*, or *ac* in Etruscan. Some of the inflections of the nouns agree with the Latin, as the genitive in *s*, dative in *i*, accusative in *am*, thus:—

Nom.	Clan
Gen.	Clens
Dat.	Clensi
	Clensī

Nom.	Huth, Hut
Gen.	Huths
Nom.	Puia
Acc.	Puiam

This remark as to the genitive is also applicable to proper names. The Etruscans had also a genitive in *us*. Conf. Cleopatrus = Κλεοπατρον. Among native inflections we have the nominal *k*, *l*, and *n*, also the verbal terminations *e* and *ke*,* and the diminutives in *ésl*, *eisl*, as Suthin, Suthinésl, Suthineisl. There is also the patronymic *al*. This however may be the same as *al*, which Fabretti styles an ablative, as in the proper names Numsini, Numsinal; Plaute, Plautial, Plutial. Mr. Sayce gives also the nominal termination *ls*, but in the face of such words as Mealchls, Cealchls, Muvalchls, Semphalchls, Cezpalchals, this is doubtful; and it is more probable that the termination is *chls* or *chals*, or even *alchls* or *alchals*.

Dr. Birch speaks of the matronymic *alisa*, but the termination in Kiarthalisa, Larthialisa, Varalisa would seem rather to be *isa*, and not *alisa*. Indeed, Mr. Sayce gives the native termination *isa* to express "the wife of." I take it that this *isa* is the same with the Greek feminine termination *ισσα*, *ησσα*, *υσσα*, found in some words, as βασιλευς, βασιλισσα; and in proper names, as Κρης, Κρησσα; Λιβυς, Λιβυσσα; Φοινix, Φοινισσα; and hence no doubt we get at the much-disputed etymology of Larissa. Further, in borrowing from Greek and Latin, the letters B, D, O, P, T may respectively become M; T; U; Ph; Fp; Th; whilst V may take the form of S and C; thus Bellerophantes, Merlerpanta; Adonis, Atunis; Prometheus, Prumathe; Priamos, Priumne; Rhodopis, Rutapis; Perseus, Pherse; Neoptolemos, Nefplane; Atalanta, Athal; Diomedes,

* Dr. Deecke endeavours to show that the enclitic C, which constantly appears in Etruscan inscriptions, must mean "and." "If so," says Mr. Taylor, "it would be strictly parallel to the Tataric enclitic particle—*ok*, which bears precisely the same meaning, and is used in the same way." How much easier to compare it with *και* and *que*.

Tiumithe; Hippolyte, *Hepletha*; Vel, *Cel*; Velsinia, *Celsinia*. Then again the termination Non takes the form of *Run*, as Memnon, *Memrun*; Agamemnon, *Agamemrun*.* The Etruscans also sometimes changed R into S, as in Lara, *Lasa*; Lares, *Lases*. I may also add that in some words the Etruscan has prefixed the Æolic digamma as *ua*, *Fua*.

Let us now endeavour to ascertain of what materials the Etruscan language is made up; or at all events endeavour to trace some of the words. I know of only two words having an apparent affinity with the Celtic, viz., *Mantisa* and *Gapos*. The former, which some translate "additamentum," would seem to square with Welsh *mantais*, an advantage; said to be from *man*, little, *tais*, that which spreads around, but the Welsh word is probably of modern origin. *Gapos*, which is rendered a chariot, a cart, might be compared with Gaelic *cap*, *capa*, cart, tumbrel; but it is probable that it is merely casual, and that the Etruscan word is of Greek origin. The only word which appears to have any affinity with the German is *Lucumo* (*princeps*). Wachter derives it from *lage*, law, *man*, a man; and he quotes Verelius (*Index*) "*lag*, lex, statutum, *lagmadur*, *lagman*, *judex provincialis*." I shall however endeavour to show that *Lucumo* is of Greek origin. Mr. Isaac Taylor explains the name *Camillus* to mean "bearer," and identifies it with the name of the camel. He adds, "in Albanian, which preserves so many Etruscan words, we have the precise word *χαμαλ*, a carrier, a porter. This leads to Turkish *hammal*, a porter, carrier." But the Turkish word, which is properly written *hammâl*, is borrowed from the Arabic, and the Albanian word is either from the Arabic or the Hebrew. Further, the Turkish *hammal*, a carrier, is a different word altogether. The name of the animal is derived from Heb. גמל, *gamal*, found in some form or other in all the Phœnico-Semitic languages and also in the Egyptian; and is probably derived from Sanscrit *kramela*, *krameluka*. On the other hand, the Etruscan *Camillus* is without doubt the same with *Camillus*, one of the *Cabiri*. This latter name was originally written *Casmillus* (Κασμιλος), which Fuerstius writes in Phœnico-Punic קסמייל and translates "Orakel Gotte's." Festus and Varro render *Subulo*, "*tibicen*." Turnebus derives it from L. *sibilus*, a piper, one who plays on a flute or flageolet. The Latin *sibulum*, *sibilus* is rendered a hissing or whistling, a word probably derived by onomatopœia. The Etruscan word may however come from שבינה, a reed, pipe, literally, ear of corn (*spica*). Suetonius says *Æsar* is Etruscan for God, and Dion derives it from *καίσαρ*. "Το λοιπον παν ονομα (καίσαρ) θεον παρα τοις Τυρρηνοις νοει." Schlegel derives it from Sanscrit *kesa*, the hair of the head. It has also been variously traced to, or thought to be related to, αιθα, to burn, *æstas*, *æstus*; ηφαιστος; Irish *æsfhear*, deus;

* Dr. Birch says however that the form *Memrun* already existed in Etruscan, and was more intelligible than the corresponding transcription *Memnon*. But this does not agree with the Greek meaning of these names.

Sansk. *isvara*, lord, powerful, *aes*, splendor, *ajas*, ferrum; and even to the river names *Αυσερ*, *Αεσις* (*Αισις*), and *Ισαυρις*. But all these attempts are absurd, and the word *cesar* is more correctly from the Persian *سار*, *sar*, the head, a general, the commander of an army, highest, greatest, chief (Hebrew *שר*, *sar*, a leader, commander, prince). It is indeed from this word that we have the name Cæsar, whence the Greek *Καισαρ*; Arabic *Kaisar*; German *Kaiser*; Russian *Tsar*; Magyar *Zár*; Polish, Bohemian, and Illyrian *Car*.

The word *Lucumo*, which by-the-bye is not found in Hesychius, is rendered king, prefect or prince. It is also found written in Etruscan *Lucomo*, *Lucumu*, by contraction *Lucmo*, and in Greek *Λουκουμον* and *Λακουμων*. There appear to have been twelve *Lucumones*, in Etruria, over whom one presided. Servius says Mantua had three tribes, which were divided into four *curiæ*, and each being governed by a *Lucumo*, it is evident that in the whole of Etruria there must have been twelve. *Lucumo* seems also to have been a man's cognomen among the Etruscans. On an inscription is found *Acilu lucumu* = *Acilius Lucumo*. *Lucumo* was the original name of Tarquinius Priscus, fifth king of Rome, and Pythagoras was styled *Lucumo Samius*; and Riddle thinks this appellation may be equivalent to "Prince of Philosophers," or that Pythagoras was so called because his father was a Tuscan. The Latins also made use of the term *Lucumonius* for an Etrurian or Tuscan. I have elsewhere referred to the derivation of this word from the German. Lanci thinks the *Lucumones* were men of the militia, or leaders of the army, and that the word may have been equivalent to warlike (*bellicoso o guerriero*), from Heb. *lacham* (לחם) to make war. Fabretti derives the word from (Etruscan ?) *luc*, *luch* or *lavch*, Osc. *luvc*, L. *lucere*, to shine; and Döderlein from *αλκμωνων*, *αλκιμος*, robust, strong. The Romans also called an insane person *lucumo*. Festus says some men were called *Lucumones* on account of their insanity, "quod loca, ad quæ venissent, infesta facerent." Pitiscus thinks when Scaliger (*Notes on Orpheus*) speaks of *Lucumones*, he refers to *Λυκαονας*, and that the Latin or Etruscan word is derived from the Greek word; "for," says he, "*Λυκων* was king of Arcadia, and after him Arcadia was sometimes called *Lycaonia*, and Jupiter is said to have changed him into a wolf. It is well known that *λυκαονας* is used for *λυκανθρωποι*; *λυκανθρωπια* is a disease in which those attacked go out like wolves in the night and prowl about the bodies of the dead; and it is not to be wondered at that the *λυκων* of the Greeks became the *Lucumo* of the Etruscans, who went from Arcadia into Italy; and thus the word came to be used sometimes for king or prefect, sometimes for a melancholic, or for an insane person." The Etruscans used the word *Via* for "daughter." On a Perugian urn, we find, "Arnth Anei Larthias *Via* Clan = *Aruntia Annia Lartia Filia*." It also takes the form of *Fia*, and is found written from left to right, as well as from right to left. Fabretti gives a sepulchral inscription on an Etrusco-Roman tile where *FIA* occurs at the end, the whole inscription being = "*Tannia Anainia Cominiæ filia*." *Via*, *Fia* are

without doubt from *uia*, with the Æolic digamma, *Fuia*. *Puia* occurs in inscriptions. It is sometimes, but rarely, found abbreviated to *Pui* and *Pu*, and in the accusative becomes *Puiam*. We have also as formatives *Puiac*, *Puil*, *Pualisa*. Müller and Kellerman explain *Puia* to mean *uxor*, and it has been compared with It. *buio*, *obscurus*. Fabretti gives *Pui*, *Puia* (*orba*, *vidua*), *Puiac* (*orbus*), *Puiam* (*orbam*). Ellis compares *Puia*, *Puiak*, *Puil* with Gaelic *fuil*, *blood*, *family*, *tribe*, *kindred*, L. *filius*; Gr. *υιος*, *φυλη*; Hung. *fiú*; Syrianic *pi*, *son*; Esthon. *poia*, *son*, *pois*, *boy*. The Gaelic might have been left out, seeing that the primitive meaning in that language is "blood, gore, bloodshed." Before consulting Ellis, I put down *Puia* as merely another orthography of *Fia*, *Via*. According to Paulus, *Falando* signifies "heaven." "*Falæ dictæ ab altitudine, a falando, quod apud Etruscos significat cælum.*" Festus derives *Falandum* from *φαλάντων*, from *φαλλος*, *albus*, *nitens*. Döderlein, who admits that *falantum* means "heaven," derives it from *φаланθον*, *blond* (*flavus*). He says also *φаланθος* is properly the same as *φαληρος*, *φαλιος*, "tamque aptum est ad significanda lucida cæli tem-p/a, quam αιθηρ, ab αιθειν dictus." By-the-bye, *Φαλανθος* was the name of a mountain and of a city of Arcadia, and *Φαλανθος* was a man's name. Again, *Φαλανθοι* is found on an Attic stone, mentioned by Boeck; and *ΑΝΤΙΚΡΑΤΗΣ ΦΑΛΑΝ[ΘΟΥ]* on another Attic stone. The Etruscan word *Falas* would seem to be etymologically the same as *Falando*. Hesychius gives *ΔΑΜΝΟΣ*, a horse; but Stephens says it should be *δεινος*, which has the various significations of terrible, powerful, strange, able, skilful. Hesychius renders *ΑΝΔΑΣ*, *βορεας*, i.e., the north wind. He says, "*Ανδας βορεας απο Τυρρηνων*;" and the note gives "*αντας pro αντη, id est, ανεμος.*" I only find *αητ*, a blowing, a blast, wind, nom. pl. *αηται*, blasts or gales of wind; but it may be from *ανταιος*, opposite, or its root *αντα*, same as *αντι*, against. Servius renders *Capys*, "*falco.*" It comes from *γυψ*, *γυπος*, a vulture; from *κυπτω* (*πες*), to bend. Hence *Capvæ*, which Servius says are "those who have the great toes of the feet crooked." *Capys* (*Καπυς*) was the name of the father of Anchises by Themis the cognomen of Sylvius, son of Atys, king of Alba; of the companion of Æneas, and of a leader of the Samnites. Agallator has been rendered "puer." "*Αγαλλητορα παιδα Τυρρηνοι*" (Hesych.) Lanzi considers *αγαλλητορα*, a laconism for *αγαλλακτος*. The latter signifies a foster-brother; literally, nourished by the same milk (*αμα*, together; *γαλα*, milk). *Arimos* is rendered *simia* (*οι και τους πιθηκους φασι παρα τοις Τυρρηνοις αριμους καλεσθαι, Strabo*). Fabretti writes "*Arimi, simiæ*," but gives no etymology. The word would seem to be related to *ρη*, to contract the nose, whence *ρηρη* (Lev. xxi. 18), drawn in or depressed at the nose, and the Hebrew proper name *Harumaph* (Neh. iii. 10), "contracted," *harumāph*, flat-nosed; but it is more probably (by change of *n* into *m*) from *αρινος* (*α* and *ριν*), not having a nose, noseless. The word *Læna* is said to have denoted a sort of garment, the same with *χλανις* (Gloss. apud Labb. *χλαινις læna*). Plutarch (Numa, vii. 8), "*και γαρ ας εφορουν οι βασιλεις*

λαινας ο Ιοβας χλαινας φησιν ειναι;” Varro, “Læna quod de lana multa, duarum etiam togarum instar;” Virgil (*Æn.* iv. 262), “Tyrionque ardebat murice læna.” Hence, the male name Lani; also Laani and Laiini; as Larti laani = Lars Lanus; also Lænas, cognomen of the Pōpilian family; as M. Popilius Laenas; P. Popilius Laenas. Laenius or Lenius was a Brundisium gentile name.* Turuce, which is often written by contraction Turce, has been derived from δωρον, a gift, and δωρηκε = ανεθηκε, from ανατιθημι. Fabretti gives Itinthni as found on a mirror; but he suggests no meaning. Dr. Birch writes Itinthui or Tinthun, which he thinks is = Τεθωνος (son of Laomedon, king of Troy, whom Aurora carried off an account of his beauty).

Naper occurs twice preceded by Hut or Huth; twice by Hen, and once by Masu, thus: Hut Naper Penezs; Huth Naper on the Volterra stone; Hen Naper Ci, Masu Naper Sranczl. On a Perugian sepulchral cippus it is followed by Roman numbers, as, Naper XII. As the meaning of the word is so doubtful that it has been variously rendered “vase” (*crater*); “souls;” “thus,” “moreover,” “likewise,” and “wood,” I will merely observe that, if the latter be the correct meaning, the word is probably from, or allied to ναπη, a thicket; ναποι, a hilly place covered with wood; according to others, a shady valley, a forest. It is this word which enters into composition of the name “Napoleon” = lion of the wood. Hesychius gives “Αρακος ιεραξ Τυρρηνοι.” It seems to be from ιεραξ, ακος, a hawk, vulture.† Hesychius renders Antar, “aquila.” It is doubtless from αετος, an eagle, with *n* infixed, and a quasi Scandinavian termination in *r*, thus: αετος, αετ, αεταρ, αενταρ, Antar. Conf. Sansk. *sata*, L. *centum*, Gr. εκατον; πλατη, *planta*; and the proper names Rolph, Hrolfr. Iduare is rendered “dividere,” and Iduus “divisus.” The former has been variously derived from εις δυω, induo; ιδιωω, to divide; and even from ειδω, to see. Itis, Itus, is rendered “idus,” and is doubtless from the pl. ειδουε, signifying in general the phases of the moon, in *particular*, the time of the full moon. Macrobius says, “Iduum porro nomen a Tuscis, apud quos is dies *itis* vocatur, sumptum est. Item autem illi interpretantur *Iovis fiduciam*,” &c. According to Sayce, Phruntac, found in a Pisaurian inscription, is from βροντη, thunder, which seems probable. Hesychius gives “γνις, γερανος, τυρρηνοι.” The annotator adds, “forte γρυς. Sopingius ‘an pro γενοε, i.e., ενοε, senex.’” Fabretti writes ΓΝΙΣ (γνις vel γινις); and the word is doubtless from χηνος, a goose, gander. Fabretti thinks Cen, which occurs in inscriptions may be the demonstrative pronoun hoc, and he compares it with Cehen and Ca. Lanzi would read cen[i]ken from εκονα. Cehen is found on an Etruscan marble. It is written with two different forms of the letter H, and occurs in conjunction with Suthi on a Perugian inscription. Fabretti says it may mean *hacce in* or *hocce*

* Conf. M. Laenius Strabo.

† Αρακος occurs in Pliny and Theophrastus as the name of a plant.

in ; and he compares it with Anken, Eca, and Ca ; as Cehen Suthi ; Anken Suthi ; Eca Suthi ; Ca Sutha. Migliarini renders it *en hic* (Ital. *ecco qui*) ; and Lanzi, *ενεκα* or *ενεκεν*, causa. Hesychius renders Gapos, *οχημα*, vehiculum ; and *βυρρος*, *κανθαρος*, cantharus (poculi genus). Gapos, which I have before compared with the Celtic, is from *καπος* for *καπανη*, a carriage, the hind part of a chariot. Lanzi says *βυρρος* may be easily derived from *βυσσος*, profunditas. By interchange of ϕ and β it might come from *αμφορεus*, an amphora. Again, it may at first have referred to the colour of the cup ; and, if so, is from *πυρρος*, red, ruddy, reddish, tawny. In Latin *burrus*, *burrum*, *burra*, *birrus* were applied to a common sort of garment, on account of its colour. Festus says, “Burrum dicebant antiqui quod nunc dicimus rufum ; unde rustici burram adpellant baculam, quæ rostrum habet rufum : pari modo rubens cibo ac potione ex prandio burrus adpellatur.” Hence, perhaps, the Spanish word *porrón*, an earthen pitcher for water. According to Dionysius, *Τυρσις* was used by the Etruscans for *turris*. It appears to have been borrowed from the Greek. In some of the formulæ used on Etruscan tombs to record the death of the deceased, occurs the word *Lupu*. It is frequently found at the end of the sentence ; but it sometimes occurs at the beginning, and even in the middle of the sentence, thus : avils cealchls lupu ; avils huths lu[p]u ; avils huths muvalchls lupu ; avils thunesi muvalchls lupu ; avils cealchls lupu ; avils huths lu[p]u ; avils huths muvalchls lupu ; avils thunesi muvalchls lupu ; avils machs semphalchls lupu ; avils ciemzathrums lupu ; lupu avils esuls cezpalchals ; lupu avils machs zathrums ; arnt thana lupu avils xvii. In one inscription we have *Lupum*. According to Corssens, Avils was the name borne by a great many Etruscan sculptors who carved most of the important sarcophagi which have been found, a family of which Avils Machs and Avils Esals were leading members ; that the words mealchls, cealchls, muvalchls, semphalchls, zathrums, instead of denoting decades, as hitherto generally supposed, designate five peculiar kinds of carved coffin-ornaments, fabricated exclusively by Avils and his kindred, while Lupu is to be translated either “sculptor” or “sculpsit,” according to convenience, thus : Avils machs semphalchls lupu, is = “Avilius Majus semphaculos sculpsit ;” the verb being understood, the Etruscans, according to Corssen, being in the constant practice of leaving out the verbs in their sentences. Mr. Isaac Taylor disputes Corssen’s rendering of *Lupu*, and translates it *mortuus est*. He says, “The internal evidence of the inscription is overwhelming in favour of the meaning *mortuus est*. Corssen, misled by his Aryan analogies, insists that it means sometimes ‘sculptor,’ sometimes ‘sculpsit,’ the Etruscans perversely refusing to distinguish between the verb and the noun. Now see in what difficulties Corssen is thus involved. One epitaph runs :—*Arnt Thana lupu avils xvii.*, meaning, of course, ‘Arut Thana died aged 17.’ Corssen, however, is obliged by his theory to translate ‘Arnt Thana, a sculptor, aged 17.’ Now Thana is beyond dispute a woman’s name, perhaps the commonest of all Etruscan female names. Is it con-

ceivable that an Etruscan girl of seventeen should be designated on her tomb as a sculptor by profession? In another case, we have the epitaph, *Lth Velcialu Vipinal lupu*, meaning, of course, 'Lth Velcialu Vipinal mortua est.' That this epitaph relates to a woman is shown by the fact of a female effigy being carved on the lid of the sarcophagus, yet Corssen translates 'Lth Velcialu Vipinal, a sculptor.' In a third case, Corssen affirms that the epitaph, *avils lxx. lupu*, instead of recording the age of the deceased, records the fact that the sculptor of the sarcophagus was seventy years old when he completed it, 'natus annos lxx. sculptor.' Marvellous indeed that in an inscription on a coffin the age of the deceased should be altogether omitted, while the age of the maker of the coffin should be given at full length, and that this should occur not once, but again and again! Is it credible? Fabretti derives Lupu from *λοπας*, the original meaning of which was a vase for cooking food, but which is here used for cinerarium or sepulchrum. He says, "*λοπας*, fortasse pro olla vel cinerarium sive sepulchrum usurpatum." Lanzi derives it from "*λοπας*," "ch' è vaso da cuocer cibi, com' è pur olla in latino; ma ha questo altro senso presso Suida, *η σoras παρα Θεοπομπω και κωμικοις*. Lupu non ha quasi dissimile se non ciò che distingue una lingua dall' altra, la desinenza. Il significato, se stiamo alla origine del vocabulo greco, è urna, cinerarium, e i vasi ove leggesi la corrispondente voce in Etrusco, ratificano tale intelligenza." We have also as formatives or derivatives Lupus, Lupuce; and, also, Lupuni, an Etruscan female name = Luponia. Penthna is found as an Etruscan word on a Perugian cippus. Sec. Campanari derives it from *πενθος*, luctus, or *πενθεω*, lugeo; and Vermigliani interprets Penth, which occurs on an Etruscan marble, *πενθος*, luctus. The word Sec, Sech, usually written emphatically *Sec*, *Sech*, occurs on many sepulchral inscriptions relating to women, and is almost always joined with matronymics ending in *al*. Maury translates it "uxor," and derives it from Greek, *ζευγω*, to join together, to join in marriage. Ellis gives Armenian, *zavah*, familia, filius, proles. It has also been derived from *sec* (Sansk. *sac*, *sap*), base of *seq-ur*; and, if so, it would mean that which follows, comes; series; but the probable meaning is "filia," from *τεκος*, offspring, progeny, issue, by change of *t* into *s*. Nanus might be compared with L. *nanus*, a dwarf; *νανος*, a dwarf, pigmy, and with Heb. *נן*, *neen*, progeny, offspring; but the Etruscan word is rendered vagabundus, and it comes rather from *πλανος*, from *πλανωω*, to wander. *Πλανος* would easily change to *λλανος*, *λανος*, and finally become *νανος*, *nanus*.

I will now endeavour to give some words derived from or allied to the Latin. Huth or Hut, found on two tesserae are said to be the numeral 4, and may be compared with *quat-uor*, and *Ciem* (abbreviated *Ci*), rendered 5, may compare with *quin-que*. Balteus, Celer, Capra have the same meaning as in Latin, and as they have not an Etruscan look are probably of Latin origin. Hesychius renders *Αταισον*, arbustiva vitis. It is doubtless the same with L. *vitis*, without the digamma. Fabretti renders Cassis, "armatura

capitis." The cassis was a sort of helmet, and seems to have been different from the *galea*, for Tacitus says, "Cassis aut galca." Again Isidore says, "Cassis de lamina est : galea de corio. . . . Cassidem autem a Tuscis dicunt." If cassis is of Latin origin, it may come from כסה *kasah*, to cover over. The Latin *cassis*, a net, toil, would seem to be a different word, for Ger. Io. Vossius derives it from יקש, *yakosh*, to lay snares ; laqueum tetendit s. posuit, &c. Anhelos, which has been rendered aurora, is from or related to *anhelo*, to breathe. Fabretti renders Maris, Maris, "genius aut δαίμων ;" and he thinks the word may be equivalent to Mars. Sec. Campanari mentions an inscription where it occurs on a speculum on which Venus and Minerva are sculptured. It was probably used by the Etruscans for "boy," and is the same with *mas*, *maris*. Dr. Birch gives Maris Turan, "the boy of Venus or of Cupid ;" Maris Thalna, "the boy of Juno or of Ganymede ;" and the Maris of another goddess, whose name, he says, is badly copied, if indeed it is not "Sethlans or Vulcan's boy." Neither Hesychius nor Fabretti give Lanista, but the word occurs in Cicero, Martial, Juvenal, Livy, and Isidore, and many things are related concerning the *Lanistæ*. The word lanista is found in inscriptions on Roman stones. P. POETILIUS SYRUS LANISTA. A.D. AR. FORIN. *Prudent. contr. Symm.* ii. 1093, "— sedet illa verendis vittarum insignis faleris, fruiturque lanistis. *Mart.* vi. 82. 2. Inspexit velut emptor, aut lanista." Pitiscus says, lanista is an Etruscan word signifying carnifex (executioner). In Schiller's Riddle it is rendered "he who excites to battle or war : hence, a trainer of fighting cocks (lanistæ avium rixosarum) (*Colum.* viii. '2, 5) ; 2, a captain of banditti or murderers, gladiators being frequently used as a term of reproach for these." The word seems to be allied to L. *lanius*, a butcher, slaughterman ; *lanio*, to mangle, lacerate, tear to pieces. The Etruscan word Clan, which Newman queries as meaning "filius," has been derived from *cnatus* for *gnatus*, part. of *gnascor*, from Sansk. *gan*, whence γίγνομαι, L. *gigno*. The gen. sing. Clens = *cnati* (*gnati*) is found on a Perugian ossuary. The datives Clensi, Clensi also occur. In an inscription in Migliarini's work, Clensi is rendered by L. *cliens*. IDVLIS, according to Macrobius, is an Etruscan fem. subs. signifying a sheep. Festus says, "Idulis, e.g., ovis, i.e. quæ Iovi omnibus idibus mactabatur," "A sheep offered to Jove every hide."* Šuthi (sometimes abbreviated to Suth), Suthi occur in inscriptions and on an urn. Šuthi is found in an inscription at the entrance to the tomb of the Volumnii, near Perugia, described by Vermigliani : Arnth Larth Velimnas Arnveal Thusiur suthi akil theke. Suthi is found in conjunction with Cehen, Ca, Anken, and Eca ; as, Cehen Suthi, Ca Suthi, Anken Suthi, Eca Suthi. Lanzi thinks Šuthi, Suthi, Suti, may come from σως, safe, or σωτηρια, preservation, security, safety, or σωτηριον, donum pro salute, rendered by Dunbar, safety, i.e. life,

* Conf. Macrobius, Sat. i., 15 ; and Ov. Fast. i., 56.

means of deliverance, also expiation. Vermigliani cites antiquaries who consider *suthi* a sepulchral term, and with whom he agrees; and he derives it from *συνθηρε*. Orioli says, "the nature of the localities where the word is found inscribed do not leave a doubt on the subject." Ellis, who says the most obvious meaning is "tomb," or "buried," compares it with Welsh *suth*, a heap; Gaelic, *suidh*, a seat; Carian, *σουζ*, a tomb, &c. Migliarini renders *Eka suthi*, hic situs est; questa è la tomba, this is the tomb. It is doubtless etymologically the same as *situs*. On Etruscan inscriptions we find also *Ŝutna*, *Suthic*, and *Suthil*; and *Suthin* on a marble; *Suthinis*, *Suthineis* (both diminutives), *Suthiti* and *Ŝuthilp* on sepulchral inscriptions. *Suthrina* = *Sutrinus*, is also an Etruscan family name. *La Suthrina* = *Lars Sutrinus*, is found on a Perugian inscription. *Sutrinus* also occurs as a proper name of men on a Perugian urn. *Tenas* (whence probably *Tenthias*), which occurs on an Etruscan stone, is doubtless equivalent to Umbrian *TENITVS* = *L. teneto*, imperative third person sing. from *tenere*. *Mantisa* is rendered "over-measure" (*additamentum*), also "weighing meat." Littleton, "over-measure, advantage, the vantage or overweight." Festus says, "*mantisa*, *additamentum* dicitur lingua Tusca, quod ponderi adjicitur, sed deterius et quod sine ullo usu est." Döderlein derives *Mantisa*, or rather *Mantissa*, from *ματταζειν*, like *comissari*, from *κομαζειν*, &c., &c. by inserting the nasal. Donaldson connects it, like *me-n-da*, with the root of *ματτην*; and he compares *frustum* with *frustra*. But *Mantisa* comes rather, as Scaliger suggests, from *manu-tensa*, by corruption *mantesa* (like *pertisum* for *pertæsum*), and finally *Mantisa*; and Gouldman adds, "sic dict. eo quod manu porrigitur, præter id, quod ad pondus exigitur; ut sit *mantisa caro*, χειροτοννην κρεσι, porrigitur enim manu, non datur pondere." The word *Nepos* is rendered *luxuriosus*. It is the same with the Latin word, which signifies literally a grandchild. Gouldman gives also as a further meaning, "a riotous person, a prodigal and wasteful ruffian, a spender of his patrimony and goods in belly cheer, an unthrifty companion, a spendthrift." Ammianus Marcellinus renders *nepotalis*, riotous, unthrifty, lavish. Riddle gives as a secondary meaning of *nepos*, a spendthrift; and translates *nepotalis*, banqueting, luxury, extravagance; *nepotinus*, extravagant, luxurious; *nepotor*, to be prodigal or extravagant. Festus correctly derives *nepos* from *natus post*, sc. filium. *Eitva* is found on a sarcophagus at Viterbo, and in a Tarquinian inscription. It is probably allied to *Etve*, found on a Perugian inscription, and *Etvaca* on a Perugian marble. The meaning of *Etve* is doubtful. According to some, it means "annual," from *ετος*, year. Fabretti considers it = *atque*. *Lar* is usually rendered "deus domesticus apud Etruscos;" others write *Lars*, which they variously translate *rex*, *dux*, *summus*, *dominus*. The Greek orthography is *Λαρος*. Lanzi thinks the word may come from *Laris* or *Larissa*, respectively the son and mother of *Pelasgus*. But *Larissa* was also the appellation of several cities of Greece, and, notwithstanding the several

attempts at derivation of this name, there cannot be much doubt that the last syllable, *issa*, is merely the Greek feminine termination *σσα*; as, *αρχη, αρχισσα*; *βασιλευς, βασιλισσα*; *φοινιξ, φοινισσα*; *κίλιξ, κιλισσα*. Orioli thinks Lar may be allied to Scottish *laird*, and Grotefend to English *lord*, both which suggestions are ridiculous, seeing that *lord*, by corruption *laird*, is derived from an Anglo-Saxon compound. Lar, Lars, frequently written Larth, was a common male name with the Etruscans. We also find Lart, less frequently Larthi, more often, for the sake of brevity, La. In sepulchral inscriptions we have Larth Cae = Lars Caius; Larth Cvelne = Lars Cilnius; Larth Velimnas = Lars Volumnius; Larth Pethna = Lars Petinius. Larthi (Lartia) is also a very common female prænomen, as Larthi Apia = Lartia Appia; Larthi Marci = Lartia Marcia; Larthi Titei = Lartia Titia. From this root we have also the female prænomen Larza; and among other derivatives, Laran, Lara, a titular *δαίμων* among the Etruscans. It is the same as Lalan and Lala, and was perhaps used for Mars or some other god. It occurs in *speculi*, &c., with Fuflun, Maris, Aplu, Menrva, Turan. Other forms are Lasa, Lasal and Lasna, which latter is found on a vase. Lasa and Lasal occur as women's names in Gruter and on a Clusinian tile respectively. The words Vecu, Sitmica, Thimrae, and Racunela, which are doubtless proper names, are found joined to Lasa; as, Lasavecu, Lasasitmica, Lasathimrae, Lasaracuneta. Dr. Birch renders them "goddess Fecu," &c. The word Hister is said to have been used for stage-player = L. *ludio*, and from it we have L. *histrio*. Some derive it from the name of the Histri or Istri, a people of Istria or Histria,* and, if so, it may be indirectly of Celtic origin. Istria would seem to mean "the district by the water," from Celtic *dwr*, water, prefixed by a sibilant. Hence, the European river names, Stour, Stor, Ster, Steyer, Styr, Stura, Ister, Astura, &c. Avil, Aivil, Avils, occur in Etruscan sepulchral inscriptions. Some translate them "vixit," others "ætatis;" thus on an Umbro-Tudertum urn we read, Avil XXXIII which is rendered ætatis [suae ann.] XXXIV. On other urns we have Avils XX = ætatis [ann.] XX., and Avilsas = ætatis [an.] sex. Sometimes Ril is added, which is said to mean "year." Indeed, writers who deny that Ril avil means "vixit annos," admit that it is equivalent to the latter. Welsford after referring to inscriptions in which *Ril* is supplied by *Abik*, *Avik*, *Aibik*, *Aivik*, and an inscription in Lanzi (tom i., p. 423), in Roman letters, in which he finds QVIX as a contraction for *Quæ vixit*, says, "the first letter (in Ril?) is not a Greek P, but a Phœnician or Samaritan B, with the power of V, and the last not an Etruscan L, but a Greek K badly formed;" and he gives Etruscan letters which he proposes to read = *Chui* or *Qui vik (sit)* as a contraction for *Qui vixit*. Passerius derives avil from Hebrew *ava* (אָוָּ) desiderare, whence ævum, ætas. Ellis compares *avil*, ætas, with Armenian *aveli*, *yavél*, *ar-vel*, more, excessive, &c.; and among other words, with

* Conf. Paulus ex Festo.

L. *ævus*, *ævum*, Greek *αἰών*; and he thinks *av-il* may be derived from the Armenian root *av*, with the termination *il*. *Avil* is most probably from *æv-um* * with an Etruscan ending. *Ril* is frequently found not in conjunction with *avil*, but followed by numerals, as *Ril X* = ann. X, *Ril XXX* = an. XXX. † *Arse verse* is said to have been used for a spell written upon a house to prevent its being burnt down. Paulus renders it "*Averte ignem*," keep away or prevent the fire. Littleton writes "*Arseverse*, i. *averte ignem*. Inscriptat aliquis *Arseverse* in ostio; Vers. Afranii, quod factum ad incendiorum deprecationem," &c. Dacerius (on Festus) says *arse* is from *arsisse*, and *verse* from *averte* (2nd p. s. imp.); but this would hardly translate. Festus says *arse* = *averte*, is for *arce*, and *verse* signifies fire. If so, *arse* is from *arceo*, to drive away, put off. On a mirror preserved in the Louvre occurs a word, which from right to left reads *Huins*, and which is usually rendered *Δαναοί*, i.e., Græci. Others write *Hlins* or *Euini*, which they translate "*Hellenes*." Mr. Isaac Taylor says the mirror bears the unmistakeable label *Huins*; that the word *Hlins* has hitherto been dismissed by the commentators as an unintelligible equivalent of *ΔΑΝΑΟΙ*, and he thereupon connects the word *Huins* with the "*Huns*." Captain R. F. Burton observes, "even if the word were written *HVINS* it would still read "*Hellenes*," for the L in Etruscan has many forms, of which one is V, with the left leg slightly shortened." There cannot however be a doubt that the latter is a V, and not an L. M. de Charency, who examined the mirror with a lens, makes it V, but he reads from right to left, *SNIVH*. Dr. Birch suggests that the word is analogous to the Latin *fons*. After referring to the *Etruskische Spiegel*, published by Gerhard, in which he (Dr. Birch) renders the word *Heiasun*, or *Heithsun*, *Iason* or *Jason*, and which Mr. Taylor reads the reverse way, *Nusthieh*, and supposes to be one of two Turkish words, Dr. Birch says, "the next erroneously explained or doubtful subject is the mirror engraved by Gerhard, and reproduced by Mr. Taylor. He has followed the authority of Lanzi, Millin, and Gerhard in supposing the subject to be the fabrication of the wooden horse by Epeus. It might be passed over if a theory had not been started that the word *Huins*, which occurs on a part of it meant *Huns*, warriors or foes in the Rasenna or Etruscan language, and that the Etruscans, vanquished by the *Huns*, had emigrated to the West. But considering the various ways in which the same names are written, it would be as near if not nearer to *Iónes* or *Híónes*, the Ionians, as meaning the Greeks, as the *Huns*. On the hypothesis that the subject is the fabrication of the horse, it has been suggested that the word means the Danai or Greeks. This mirror has excited much controversy, and the inscriptions have been differently interpreted. It represents a horse with a chain attached to the right foreleg, bearing the inscription *Pecse*, and consequently,

* From *αἰ-ων*, always being; thus, *αἰων*, *αιFων*, *ævum*.

† Fabretti quotes Maffei and others who derive *ril* from *ρεω*, to flow.

according to the Etruscan mode of transcription, *Pegasus*. The horse is not winged, nor was Pegasus winged on the oldest works of art. At the head of the horse stands a man wearing a chlamys, holding his right hand down to grasp some object, and drawing his left over the neck of the horse. He has a clue to his name, the word *Sethlans*, Vulcan. Behind the horse is a man with a hammer, draped and wearing a cap, and hammering, called *Etule*, supposed to be *Aitolos*, the Ætolian, a surname of Epeus. The object behind the horse is supposed to be the door by which the Greeks entered. All this however does not explain why the horse is called *Pegasus*, and the subject may with equal if not greater probability be referred to the capture of Pegasus by Vulcan, and the fountain Hippokrene, or the *fons caballinus*, called in Etruscan *Huins*, fountain, analogous to L. *fons*. The man at the neck of the horse is a youthful hero wearing a chlamys, more like Bellerophon than the conventional Vulcan. The man with the cap and hammer resembles that god; the object called a door has a twisted object, apparently intended to represent water rising at the horse's heel, and which, according to the legend, sprang from the ground when the divine steed kicked the earth; the so-called door is remarkably large, and rather resembles the marble stand of a fountain. Lanzi read the legend *etule aecse Sethlans*, Vulcan made the horse, taking *aecse* for the Latin *equus*. Gerhard and Mr. Taylor admit *Pecse* instead of *aecse*, and that it means *Pegasus*, but do not explain how the Trojan horse was called Pegasus, nor how nor why he is chained. If it represents the capture of Pegasus, the Etruscan words *etule Pecse Sethlans* might be compared with the Greek *edouleue Pegason Hephaistos*, Vulcan has enslaved Pegasus. Or if *Etule* is, according to the rule, the name of the person with the hammer, it would be that of a Cyclops, and the action of the *Sethlans* would be that of chaining Pegasus. Under any circumstances the Huns take to flight." *

DISCUSSION.

The thanks of the meeting having been voted to the author,

Mr. CROGGAN said: The etymology of the name "Pelasi" is contained in the Lycian language. Its literal meaning is *the sons of the towns of the high city*, a primitive form of expressing *the confederation of the people of certain towns under the government of a capital city*. The name is therefore *generic*, and is equivalent to early Aryan. The pre-Hellenic inhabitants of Greece, the Trojans, and Mæonians, referred to by Dr. Charnock, may all be ethnologically classed under "Pelasi." The term "Pelasi," indicating the social condition of the early Aryans, would have existed amongst them previous to all historical records, and would have been applied to their communities however widely separated.

* *Athenæum*, June 20th, 1874.

Mr. E. RICHMOND HODGES said: I feel assured, on careful examination of the Perugian Inscription, discovered in 1822, that we possess in that imperishable document the key to the long lost Etruscan, just as the Behistun Inscription has unlocked the key to the old Babylonian and Medo-Scythic. For my part I see nothing at all of a Semitic character in the language of these inscriptions. Mr. Isaac Taylor, with great ingenuity and learning, has endeavoured to establish the Turanian origin of the Etruscan, and, so far as I can judge, with much probability. We know that the earliest settlers of Europe were, according to Dr. John Beddoe, of Turanian race—a people related to the Lapps, Finns, and Basques—and Mr. Taylor has pointed out some remarkable coincidences between the ancient Accad or Proto-Chaldean language—the speech of the early Turanian settlers in Mesopotamia—and the Etruscan. Corssen's attempt to get at the Etruscan through the Oscan and Umbrian I do not think successful. I have read most of the Umbrian and Oscan Inscriptions, but see no connection between them and the Etruscan.

Mr. BUCKLEY said: The forms of Etruscan Art are found in the earliest remains of Irish Art, found in the bogs and lakes of Ireland, and in the tombs of the early Irish settlers, and much light may be thrown on this part of the pre-historic period by a critical examination of the various Irish MSS.

After some remarks from Dr. MELIA, Mr. JONES, Dr. CARTER BLAKE, and Mr. CARMICHAEL,

The PRESIDENT said: In later times Etruria comprised the greater part of Tuscany, a portion of the Pontifical States, and the Duchy of Lucca. Among other places, Etruscan monuments or inscriptions have been found at Perugia, Bologna, Sovana, Toscanella, Volterra, and Chiusi. The inscriptions are found on sepulchral furniture, pottery, tombs, rocks, &c. Both cremation and inhumation were practised by the Etruscans. According to Strabo, in his day not a trace remained of the Lydian language even in Lydia itself. If so, says Dennis, Dionysius' statement as to the dissimilarity between the Etruscan and Lydian languages is of no account. Herodotus under the common name "Pelasgi," includes the Athenians, Arcadians, Ionians of Asia Minor, the Lemnians, the Samothracians, and the Cretonians. It would appear also that the Hellenes were originally one of their tribes. Homer connects the Pelasgi with Asia Minor, Crete, Dodona, and Thessaly. Rawlinson says Attica was Pelasgic at a very remote period, and that a Pelasgian world seems to have preceded an Illyrian population in Macedonia.

Reviews.

Mr. G. H. LEWES, *Problems of Life and Mind*.

THE second volume of this, Mr. Lewes' *magnum opus*, has, by the courtesy of its publishers, Messrs. Trübner & Co., been sent to us for review. Unfortunately, the space at our disposal permits us to make a passing reference to it only, and we can merely urge the Anthropologist to study it without further remark. Nowhere more than in this book is to be seen Mr. Lewes' capacity for treating the great questions of science and philosophy; and nowhere is he more illustrative and clear. His reasonings are cogent and irresistible, while his lucidly beautiful and even style enables him to render pleasing and attractive what are generally considered to be the driest and abstrusest subjects. There is in this volume, as in the previous one reviewed in "Anthropologia," No. 3, pp. 420—427, the same elimination of all the Metempirical elements,—(*i.e.*, metaphysical, *pur sang*,)—of every problem discussed with the same earnest endeavour to preserve whatever, practical or speculative, is of scientific value in the old metaphysics. It is evident to the most casual reader that Mr. Lewes' constant desire is to be just to his friends or foes, philosophic and scientific, and not only to give them a fair hearing, but to interpret what they say honestly. If metaphysicians are dissatisfied with him it is because he is and ever will be a rigidly scientific thinker. He will not wander with a method, nor will he quit *terra firma* for the cloudland of dreams and fictions as they do.

Mr. Lewes has in these two preparatory volumes made an important contribution to Positive Science and Positive Philosophy. It has been his object for more than thirty years to improve not only man's thoughts, but his method of thinking, and it must be a source of gratification to him to know that he has done his work well, and in such a way as to earn not only the gratitude but also the admiration of the most thoughtful of his contemporaries.—J. KAINES.

TALES AND TRADITIONS OF THE ESKIMO, by Dr. Henry Rink, edited by Dr. Robert Brown, with numerous woodcuts drawn and engraved by Eskimos. Blackwood.

THE MIND OF MAN, &c., by Alfred Smee, F.R.S. G. Bell & Sons.

MATÉRIAUX POUR L'HISTOIRE PRIMITIVE ET NATURELLE DE L'HOMME, &c. (Monthly.) Au Musée. Toulouse.

Did space permit, we should like to devote several pages to the consideration of these publications. As it is, we can only recommend every Anthropologist to study them for himself.

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